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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

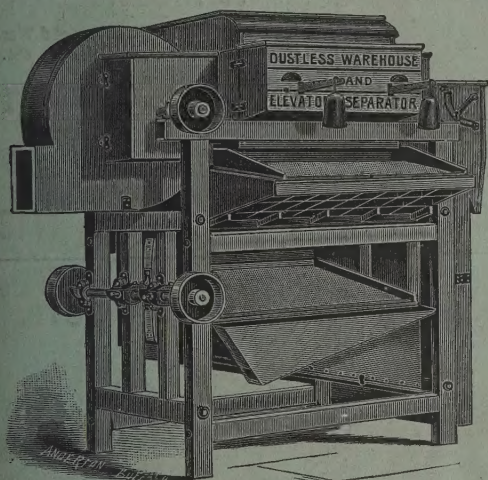
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VOL. VI.

CHICAGO, ILLINOIS, MAY 15, 1888.

No. 11.

SUBSCRIPTION PRICE,  
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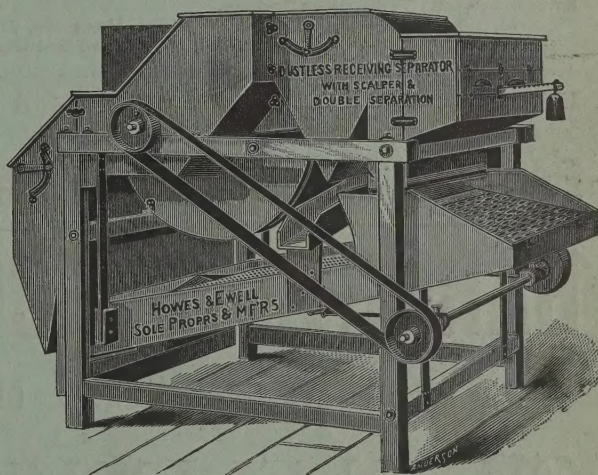
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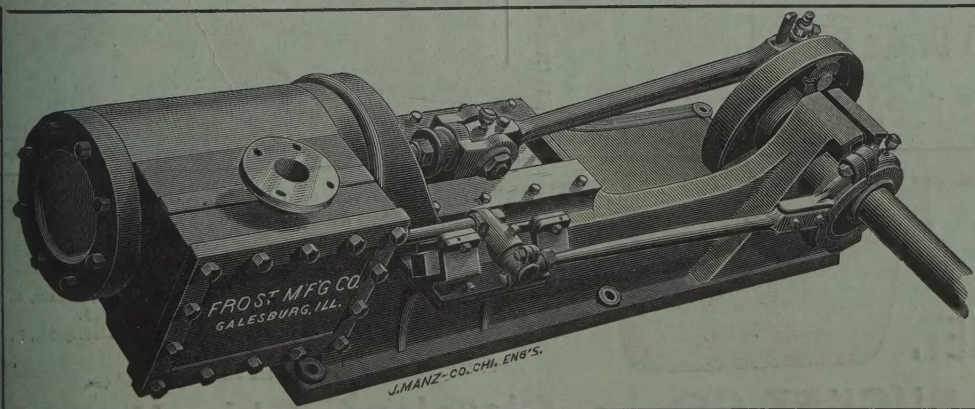
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SEE PAGE 243 OF THIS ISSUE.

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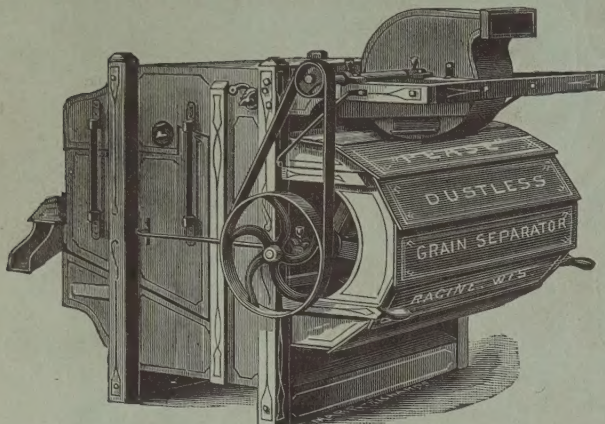
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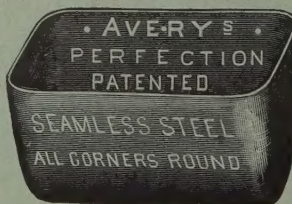
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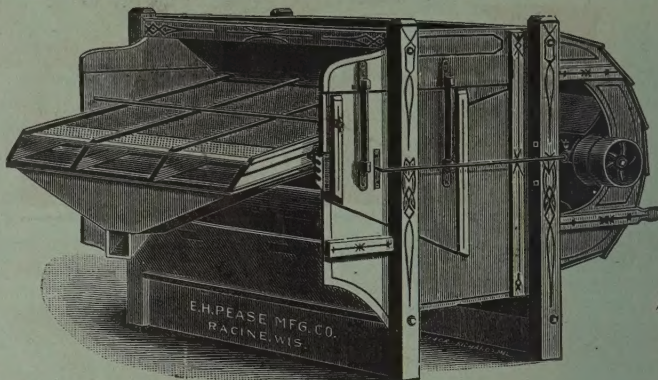
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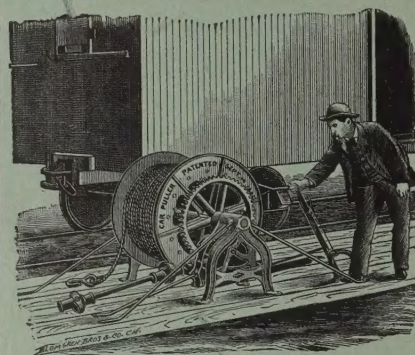
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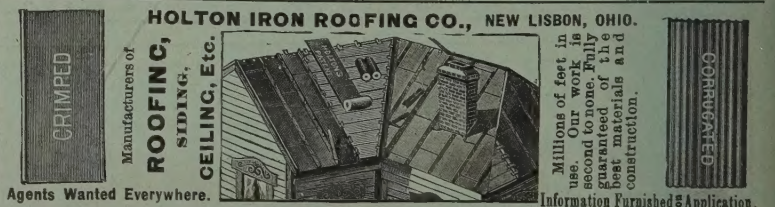
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## GRANARIES.

[FROM "THE MILLER," LONDON, ENG.]

Not long ago Herr Georg Rieger of Budapest, writing on the milling industry of that capital, deplored that his fellow countrymen had not sufficiently availed themselves of all the material resources of modern civilization in the course of their milling business, and more especially in the handling and storage of grain. He said:

"The anomaly that only the three mills lying in the south of the city of Budapest are in direct communication with a railway station is in urgent need of reform. On the other hand, the remaining eight mills in the north of the city (four of which are directly situated on the Danube) are still deprived of a convenience which all the larger provincial mills now enjoy. And is it not a strange anomaly that the majority of the mills of our capital fetch and take away their grain, whether it comes here by rail or boat, in their carts, and that in the same way they are obliged to send away their milled products to the forwarding depots in wagons?

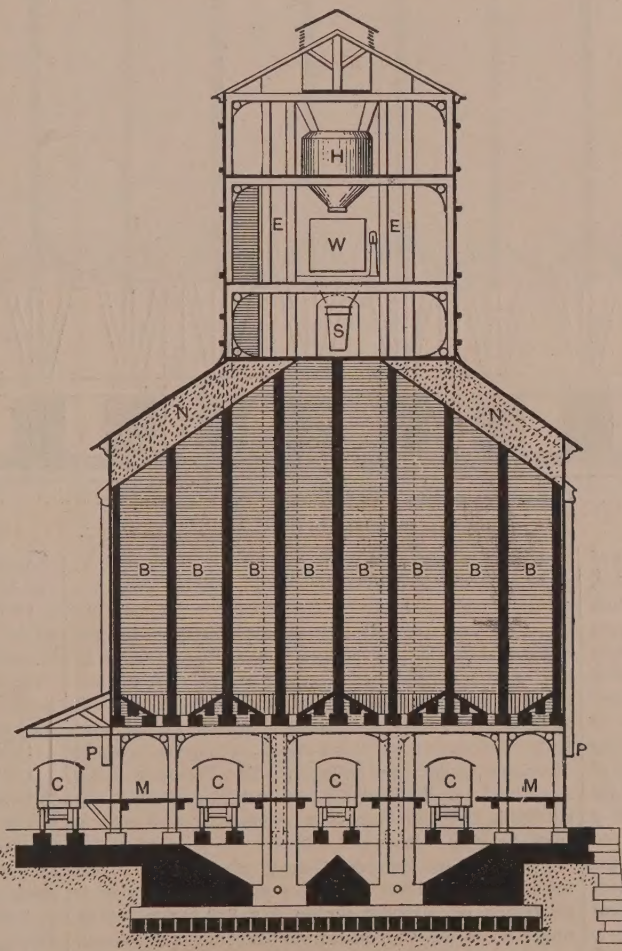
"The consignments forwarded from the South Railway via Fiume to England, France and Brazil, are burdened with cartage and bridge and tunnel tolls. We have, indeed, a branch line, but this cannot be utilized on account of its high freight; it is still much cheaper to send on the flour to Ofen in wagons. The Americans do things differently. There can be no doubt that even in flour manufacture there are economies to be effected, and in this respect we can learn much from the Americans, whose system of milling involves much less hand labor than ours."

Formerly, when foreign importations were less known, wheats were brought to the mill doors in farmers' carts, and flour was taken away by the customer, giving the miller little or no trouble beyond his own door. Railway companies subsequently gathering wheats from a wider circuit, as also from the ports, fell in with the prevailing custom and delivered them to the mill. The economical miller here discerned a saving in carting his own goods from the station or wharf, and also in the finding of his own sacks, which otherwise entailed a charge; this, with occasional objections to railway freights and quarrels about demurrage, constitute in substance the efforts made to reduce the cost of delivering grain at his own door. The exceptions to this rule are the millers who have placed their premises by the side of a canal or railway, thus saving the cartage to the mill; or those that have migrated to the seaboard to save both carriage and cartage; these latter found, like Mahomet, it was easier to go

to the mountain than to wait its coming. The practice therefore remains with many of bringing grain in sacks to the mill with the leakage and loss it entails, the dispatching of sacks to the ports or hiring the same, laboriously filling these sacks with grain, loading them and carting to canal or rail and delivering them on board, on arrival

remote corner of the premises as may be handy, to be again shifted if found in the way. Large holders of stock, who use other premises besides their mills, extend these proceedings, and may or may not count up the aggregate cost of manual labor, the teams employed, leakage, cost of sacks or sack hire, housing in separate premises, and other expenses incidental to the transfer of grain to their mills for grinding which would not be tolerated, but that it is no one person's interest to set the example and only partially benefit, but (as affecting the whole corn trade) a very considerable economy might be effected by a general recognition of the better method of handling of grain in bulk, in which the Americans have always possessed an advantage over us. If the latter were obliged to adopt our expensive way of getting grain to the mill, they could scarcely continue to ship us so much flour as they have done. On the other hand, by adopting the advantages they possess in this respect (as we have done in others), we should be resorting to very salutary measures for holding American competition in check; the exchange of system in this one particular might make all the difference.

To fit up our mill machinery on automatic principles may be good as far as it goes, and millers in after-dinner speeches are prone to speak confidently of confining American flour to America by making use of the same weapons that our competitors wield. There is nothing impossible in all this, but we lose sight of the fact that as yet we are only half equipped for the fray. If wagon, horses and men with sacks and shovels are to remain, the means of handling the grain which some of these fine mills have to grind, the cost of maintaining such a system, we venture to suggest, is still burning the candle at the wrong end. We require granaries for the receipt of foreign importations at the seaboard and at convenient centers for collection and distribution to our mills by water or by rail; corresponding facilities for the receipt and storage of wheats according to quantity held in our mills, and a thorough organization of the means of distribution individually and collectively. This combined effort to save time and lessen expense of handling, in order to fairly meet the competition of those with whom we have made it our



CROSS SECTION OF AN AMERICAN ELEVATOR.

at destination reloading into carts, or storage in warehouses, and then reloading and cartage to the mill. Or if the grain arrives in bulk alongside the mill in a barge, men are toled off to shovel the whole cargo into sacks, which are then hoisted or carried into the mill or warehouse, weighed in a kill-time sort of way (or slipped), and then trucked, and trucked again, or shot at some near or

task to do battle, is necessary, and we point out to our millers and factors that this is a problem that must be solved before the race with America can be won. It will require that all millers, factors and freighters handling cereals should favor the bulk system in order to be permanently and mutually beneficial; and as the means and facilities for such a system have for long been of con-



stant use and benefit in the States, and mechanical difficulties do not exist, it is a fit subject to bring before the notice of our readers.

The system of conveying grain about in sacks is practically never used in the States, save that in grain for shipment one-third is required in bags for trimming cargo, to satisfy the insurance laws. The grain is, therefore, conveyed in bulk in farmers' wagons, which are made to tilt up and empty themselves after the fashion of a tip-wagon, on arrival at the elevator; or it is brought by rail in trucks with doors made for the like purpose, and easily cleared out. The elevator-house is a long wooden structure of great solidity, and comprises a series of large and lofty bins, grouped together and supported on massive oak columns and beams, which are required to carry an immense load when the elevator-house happens to be full. The foundations of the structure are therefore composed of strong piling and concrete, and a platform is laid on this, composed of two layers of timber balks laid cross, wise to each other and strongly bound together, to form

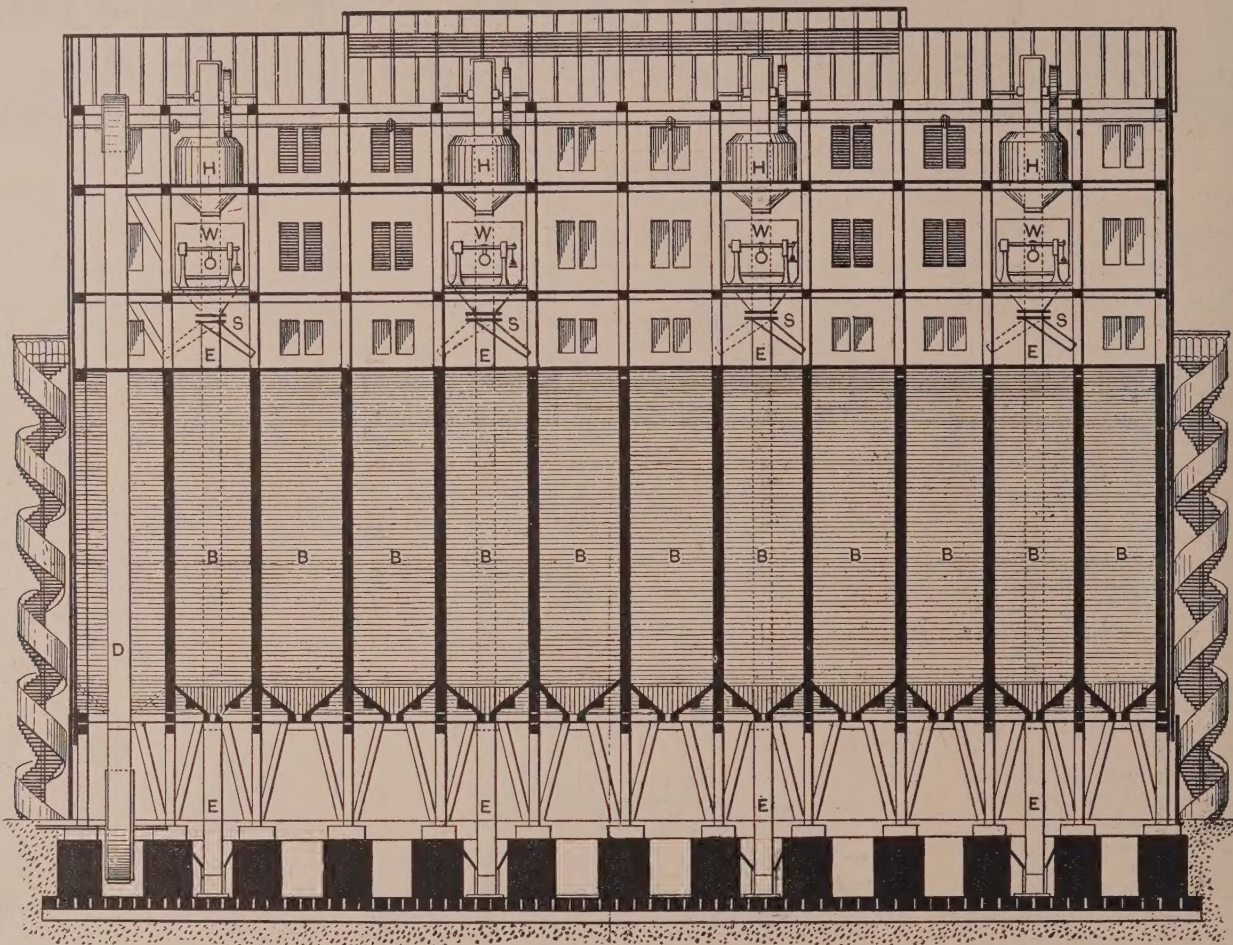
into the well holes of the elevators *E*; these latter with pulleys at top 24 inches diameter and bottom 20 inches diameter, have strong india-rubber and canvas belts, with cans 20 inches long, 6 inches wide and 6 inches deep, which, at 450 feet per minute, deliver 100 bushels an hour. Each bin has about 60,000 feet capacity, and takes an hour to fill. The grain is lifted by the elevators to garners *H*, from which it may be sent to any bin in a group direct, and without weighing, or be caught in the hopper of the weigher, and its weight recorded before passing to the bins. A handle under the receiving hopper of the weigher moves the swiveling spout *S* round to any bin within range, or forming one of the group which that set of elevators commands (conveyor bands are also employed to conduct anywhere). In like manner grain for shipment can be let off from any bin into one of the two elevators of each set, re-elevated to the weigher and discharged to the shipping bins *N* by moving the swivel spouts *S* thereto. In some elevators the grain can be weighed and thence delivered into a short elevator above, which lifts

bins, and are stopped by bumpers with their doors exactly opposite the elevator wells, the contents being discharged and the empty wagons moved off; others take their place, bumping and discharging their contents, and the same operation is going on meanwhile on the other tracks; so that in an incredibly short time an immense amount of grain is housed and classified, and ready at call. As the elevators are in duplicate, in most cases shipping of grain into cars or the holds of vessels may be carried on while the grain is being received as mentioned above; and the magnitude of the operations, of which Americans are justly proud, but which we, as yet, have failed to grasp, is, as a matter of fact, out of all proportion to the manual labor employed, and the sooner we adopt it widely the better.

[TO BE CONTINUED.]

### THE M'EVROY ELEVATOR BILL.

The Albany *Express* gives some figures showing the reduction in elevator charges at Buffalo and New York,



LONGITUDINAL SECTION OF AN AMERICAN ELEVATOR.

the pit floor in which the elevating machines stand, and which is caulked with oakum. Two rows of elevators, placed erect at suitable intervals, pass upward through the grain bins and beyond, so that over the bins an upper structure is erected of one or two floors, which contains most of the shafting and driving gear, hoppers, weighing apparatus and elevator heads, etc. Hence, from above and below the operations of the elevator-house are all carried on. The ground or track floors are built of strong beams and stringers, with lines of rails for the passage of the grain cars underneath all the bins, and with platforms between each track; so that a train of cars loaded may pass in at one end and, after the contents of each is discharged into one of the elevator boots, the empty cars may pass out at the other end of the building in a continuous order. There is also an outside track underneath a "lean to" roof, for the bagging of grain for shipment, or a vessel may come alongside and receive directly from the shipping spouts *P*, its complement of grain, and that which is bagged is discharged down covered skids onto the ship's deck and used for trimming the cargo. These spouts *P*, receive grain from the shipping bins *N*, formed above the main bins *B*, which are all numbered, and into which grain is discharged from the weighers *W*. The mode of operation will therefore be seen, viz.:—Grain cars of some 400 bushels each discharge their contents

and passes it over a warehouse separator in the top loft, and the grain is delivered into the weigher from the separator and sent in a more clean condition to some other bin or for shipment. Usually the shafting operating the series of elevators is driven by a huge belt from below *D*, having friction gear to set in motion or throw off any one elevator, as the case may be. More recently it is found advantageous to drive each set by a separate engine, with boilers outside to supply the steam to these at a short distance from the main building. The Fairbank scales have been largely used for the weighing of grain, but automatic weighers have been recently applied with a further saving of labor and time.

The bins *B* are formed of 6x2-in. planks, laid flat one upon another, and well spiked together, the outside shell is usually of stronger timber, say 8x2 inches. The upper floors are supported from the columns of the outside shell, as the contraction of the bins formerly, when the floors were laid on them, was found to greatly disarrange the structure. The outside is covered by slates or galvanized corrugated iron, and a spiral staircase outside at each end leads to the upper structure. For the extinction of fire, steam pipes from the boiler, with suitable valves, are provided, so that the building can be surcharged with steam at any time. As the grain cars pass the inspector, they are moved into the tracks beneath the

should the McEvoy bill now pending in the New York legislature become a law. At present rates at Buffalo, for 1,000 bushels of grain, the lake vessel pays for trimming \$4.00 (of which \$3.25 goes to the men and \$1.75 to the steam shovel), and in addition for elevating, \$1.25. The owner of the grain also pays \$7.50 for its elevation. The canal boat in addition pays \$1.25 for trimming. The total elevator charge at Buffalo, therefore, amounts to \$14 on a thousand bushels of grain.

At New York the charges for the same amount are as follows: The canal boat pays for trimming \$1.50 and for elevating \$3.50. The grain owner pays for weighing \$5. The ocean vessel pays \$8 for trimming (of which \$2 go to the men and \$6 to the elevator company). The total elevator charges at New York, therefore, amount to \$18 on a thousand bushels of grain. Under the McEvoy bill, five eighths of a cent a bushel would be the elevator charge at both Buffalo and New York. At this rate the cost on 1,000 bushels would be \$6.25. This, however, does not include the trimming, as the bill provides that this is an extra charge which is to be made at its actual cost. At Buffalo, as already stated, the cost for trimming is \$3.25 per thousand bushels for the lake vessel and \$1.25 for the canal boat. Adding this extra charge of \$3.50 to \$6.25, it will be seen that the total charges at Buffalo on 1,000 bushels of grain would be, under the McEvoy bill,



\$9.75. At New York, as already stated, the ocean vessel would pay for trimming \$2 and the canal boat \$150, which added to the elevator charges of five eighths of a cent per bushel or \$6.25 per 1,000 bushels, would bring the total charges to \$9.75 per 1,000 bushels, or the same as at Buffalo under the McEvoy plan. At the present rates the total charges for a boat load of wheat, 8,000 bushels, is \$256; under the McEvoy bill the total will be \$156, a reduction of \$100 per boat load. Summing up the whole, it is found that the total decrease in the cost of transporting a bushel of grain from the lake vessel at Buffalo to the ocean vessel at New York, would be one cent and one-quarter if the McEvoy bill should become a law.

### OMAHA'S GRAIN PALACE.

Sioux City, Iowa, had a bright idea last year, and the result was the famous corn palace, which occupied such a prominent place in her State Fair Exhibition. Omaha, which is always on the lookout for a chance to eclipse the rest of the world, saw the corn palace, and at her fair this year will have a palace in which not only corn, but every grain grown in Nebraska will be represented; wheat, oats, barley, rye, buckwheat, flax, sugar cane, broom corn, will combine to make one of the most unique and beautiful structures ever devised. No expense will be spared, and the well-known enterprise of the Nebraska people is a guarantee that their exposition this year will, like Katisha's left elbow, be worth going "miles to see."

### MANITOBA BARLEY.

A report just issued by the Winnipeg Board of Trade and Grain and Produce Exchange, gives the barley crop of Manitoba for 1887 at 2,000,000 bushels. Out of the total shipments, some 250,000 bushels passed under examination by the official grain inspector, and were graded according to Dominion standards. Ontario barley is considered an inferior article and Manitoba shippers complain of Ontario dealers mixing their grain with the Manitoba barley to the injury of the latter's reputation. The two do not mix well together as the Manitoba variety is harder and heavier than the other, and requires twelve or eighteen hours' longer steeping. Invitations were previously issued to farmers to send samples of grain to be tested as to vitality and germinating powers; 187 samples were received. These were found to vary as to vitality, while others were worthless from the loss of all germinating power. It was, however, conclusively proven that grain grown in the Northern countries possesses more vigor and vitality than that produced in more Southern latitudes, which makes it more valuable for seed. Manitoba barley is no doubt destined to become famous. The Canada Malt Company of Detroit report—after a trial of about 40,000 bushels of Manitoba barley—that they got  $1\frac{1}{4}$  barrels more ale per 100 bushels from Manitoba malt, than from the best California, and 4 to  $4\frac{1}{2}$  barrels more ale from Manitoba than from Ontario malt.

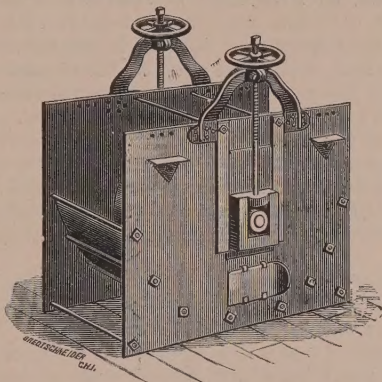
### ONE WAY TO EVADE THE LAW.

The object of the Inter-State Commerce Law is to equalize rates; in other words, to do away with the favoritism, discrimination and unjust regulations of the old methods of transportation. By these, the main end, to obtain business, was to be reached by any and all means. The small shipper could not hope to obtain the same favors as the large shipper. For a short distance he must pay as much as others for twice the number of miles; he who had a "friend behind the throne" was sure of securing easy rates; and the question of equal rights for all was one not considered by the potentates of the various transportation lines. All this was, or should have been, changed by the Inter-State Law, but that it has not been done is evident to any one who will take a little pains to investigate. One of the most common methods of evading the provisions of the law is that of under-billing, or billing articles in a lower class than the one in which they are listed. This is generally done by the shipper, and his statement of the weight is taken by the railroad companies as correct, and they do not give themselves the trouble to verify the amount. While they are in many, if not in almost all cases cognizant of the fraud practised, they have an eye to business and desire to hold on to their customers. That this practice works most unjustly to those who give honest weights is patent to all, and it is really

placing a premium on dishonesty. The attention of the commissioners and also of Congress has been called to this system of under billing, and an amendment to the law has been urged, making such misrepresentation illegal and punishable by fine, and enforcing the provision of that act which prohibits railway companies from allowing such misrepresentation.

### THE EXCELSIOR WROUGHT IRON ELEVATOR BOOT.

We illustrated quite recently the Excelsior Cast Iron Elevator Boot, manufactured by Thornburgh & Glessner, Chicago, and now present to the attention of our readers the Excelsior Wrought Iron Boot, made by this firm. This boot differs from the former in having its sides made of wrought instead of cast iron. This is practically the only difference, as all of the merits and conveniences of the Cast-Iron Boot are duplicated in this with the advantage of obtaining a very strong and durable boot at a lighter cost. The advantage of the Cast-Iron Boot con-



sists of its greater weight and rigidity, and necessarily it will prove more durable, and should certainly be used where large cups and heavy work is needed. But for all ordinary work in the average mill or elevator, this boot will be found to answer every purpose and give excellent satisfaction. The makers of these two boots are believers in using the best of everything, but there are places where it is policy to use a boot of the wrought-iron pattern in preference to the heavier one; and of the hundreds of boots of this kind that they have sold in the past seven years, not one has ever been returned or failed to give satisfaction. The style and appearance are indicated by the cut. The pulleys are nicely balanced, and the castings supporting the pulley shaft are strong. One end of the boot is provided with a slide that can be removed in case the boot becomes clogged. The shaft boxes are babbitted and provided with oil pipes. The side tightening screws are the best pattern. The workmanship is of the highest character. Further information can be obtained from the catalogues of the makers, THORNBURGH & GLESSNER, Chicago. This boot, like all other goods made by this firm, is handled by first-class dealers throughout the country.

### A NEW YORK GRIEVANCE.

The New York Produce Exchange has called the attention of the Inter-State Commerce Commission to a serious charge made by it against every railroad line doing business in the East. The charge is that the railroads have been guilty of unjust discrimination in that, "while professing to maintain joint rates and classifications between Chicago and New York for their continuous lines and routes, they have notoriously allowed, to a large number of persons, special rates, rebates and drawbacks, either given directly or indirectly, by means of such devices as under-billing, or underweighing property transported." In other words, schedule rates are maintained on goods destined for New York or for subsequent export, but when the property is to be at once delivered to vessels and steamship lines for shipment to foreign countries, under through bills of lading issued by the railroad companies under common arrangement with such vessels and lines for continuous carriage at joint rates from the point of shipment to Europe, then much lower rates, even as low as 50 per cent. thereof is charged for such service. The result is that an exporter can buy grain or other products in Chicago or Minneapolis, and send them to New York, reship them there on steamers and land them in Liverpool, Antwerp or other European ports at less

cost than if he sent them from Chicago or Minneapolis to New York alone. This is making New York a mere way station, robbing her of her commercial interests in a way she does not propose to submit to. The members of the Produce Exchange charge that such injustices have become so notorious, and are carried to such an extent that net rates to foreign ports have become lower than to New York.

### AN IMPORTANT QUESTION.

Sometime in February last Prof. W. S. Jones, a practical farmer, delivered an address before the Adams County (Neb.) Agricultural Society. The subject of his discussion was the question, "Does Farming Pay?" Taking as an example the average cost of production and average proceeds of an acre of corn, estimating the value of the land at \$25 and computing interest at the rate of 8 per cent. per annum, he figures up the cost at \$10.77 per acre, and the proceeds, varying slightly with the varying yields and current prices, at from \$10 to \$8 per acre, a balance on the wrong side of the ledger, or from 77 cents to \$3.77 less than the cost of production. Barley is figured at a loss of \$2.96, wheat 61 cents and rye \$2.95. In regard to this most discouraging aspect of affairs, a correspondent of the Nebraska State Journal says that the matter deserves the most serious consideration. If these statements are true, some remedy ought to be devised and put into operation at the earliest day. If not true, then they should be met with the clearest and most distinct refutation. He says the address has been printed and widely circulated, and cannot fail to do great damage to the state and that something should be suggested to avert the influence which it will undoubtedly exert. Evidently Prof. Jones is not one of the Nebraska "boomers," and has called down upon his head the wrath of the people of that prolific country whose promised "grain palace" is intended to show the world that "figgers" are nowhere beside "facts."

### GLUCOSE MANUFACTURERS.

Representatives of all the glucose manufacturers in the United States held a meeting in Chicago May 6, at which the chief question discussed was in regard to the selling price of glucose for the ensuing year, and an effort was made to have the several companies make an agreement on this point and pledge themselves to stick to it. The report that a "trust" was to be formed is denied by those present, though a good deal of secrecy was preserved as to the action of the meeting. Another object of the conference was to protest against the proposed reduction by the Mills bill, of the import duty on glucose from 2 cents to 1 cent. Mr. S. D. Phelps of New York, attorney for some of the manufacturers, in an interview with a reporter of the Chicago Times, stated some facts in regard to the production of glucose and starch which are but little known to those not specially interested. He says, "The corn consumed by the glucose manufactories equals more than one-third our total exports of corn, and is about one-half that consumed by distilleries. The annual production of glucose is double the cane sugar production of the South. Eleven millions of capital is invested in seventeen factories in the State of Illinois, Iowa, Kansas, Ohio, Missouri and New York. Nearly 20,000,000 bushels of corn were consumed last year which were turned into a value of nearly \$18,000,000. Five thousand laborers were employed. The short corn crop of last year and its increased price, will probably necessitate an importation of glucose this year reaching 4,000,000 pounds. It comes chiefly from Germany, and is made from potatoes." If the duties on imports are cut in half as proposed by the Mills bill, American manufacturers cannot compete successfully with those of other countries. The same is the case with the manufacture of starch, and if the proposed reduction of 50 per cent. on import duties becomes a law, the American manufacturers of starch from corn will be obliged to close their factories.

A traveler in Germany and Switzerland says: "I have seen women in Bulgaria thrashing grain with sticks—a slow and laborious process, and none the more pleasant for the burning sun that beats down on that semi-tropical country. While they were engaged in this work, their brothers and husbands sat on the shady side of their thatched huts, and dozed or minded the children as the humor struck them. Evidently, in the Bulgarian peasant's opinion, woman's sphere is where the hardest work is to be done."





Issued on April 17, 1888.

**BALING PRESS.**—Walter J. F. Liddell, Charlotte, N. C., assignor of one-half to Walter S. Liddell, same place. (No model.) No. 381,263. Serial No. 257,799. Filed Dec. 13, 1887.

**GRINDING MILL.**—Anton Dobler, New York, N. Y. (No model.) No. 381,346. Serial No. 220,661. Filed Dec. 4, 1886.

**GRAIN MEASURE.**—Friedrich H. Ehlers, Montevideo, Minn. (No model.) No. 381,350. Serial No. 259,333. Filed Dec. 29, 1887.

**CAR STARTER.**—John M. Linscott, Worcester, Mass. (No model.) No. 381,393. Serial No. 257,055. Filed Dec. 5, 1887.

**CONVEYOR FOR BREWERS' GRAINS.**—Ernest G. W. Woerz, New York, N. Y. (No model.) No. 381,455. Serial No. 243,743. Filed July 8, 1887.

**APPARATUS FOR TESTING GRAIN.**—Paul Grobecker, Artern, Saxony, Germany. (No model.) No. 381,469. Serial No. 249,616. Filed Sept. 14, 1887. Patented in Germany, Nov. 6, 1886, No. 39,622; in England, Nov. 29, 1886, No. 15,569, and in Austria-Hungary, April 6, 1887, No. 46,594, and No. 11,700.

**CLOVER HULLER.**—Alfred T. Sheet's, Germany, assignor of one-half to the Birdsell Mfg. Company, South Bend, Ind. (No model.) No. 381,487. Serial No. 235,520. Filed April 20, 1887.

**CRUSHING AND GRINDING MILL.**—James F. Winchell, Springfield, Ohio. (No model.) No. 381,515. Original application filed Nov. 16, 1885. Serial No. 182,953. Divided and this application filed Sept. 21, 1886. Serial No. 214,176.

Issued on April 24, 1888.

**AUTOMATIC LATCH FOR GRAIN GARNERS.**—Patrick E. Canfield, Chicago, Ill., assignor of one-half to Alexander W. Pond, same place. (No model.) No. 381,528. Serial No. 255,837. Filed Nov. 21, 1887.

**CAR STARTER.**—James Ziliff, Newark, N. J., assignor of one-half to Lillian Lemmens, same place. (No model.) No. 381,603. Serial No. 241,334. Filed June 15, 1887.

Issued on May 1, 1888.

**BELT TIGHTENER.**—Charles Pierce, Monticello, Iowa. (No model.) No. 382,007. Serial No. 259,940. Filed Jan. 6, 1888.

**DRIVE CHAIN.**—Edward Schench, Columbus, Ohio, assignor to the Lechner Mfg. Company, same place. (No model.) No. 382,057. Serial No. 216,451. Filed Oct. 16, 1886.

**BALING PRESS.**—Peter K. Dederick, Loudonville, N. Y. (No model.) No. 382,144. Serial No. 254,854. Filed Nov. 10, 1887.

**BALING PRESS.**—William A. Laidlaw, Cherokee, Kan. (No model.) No. 382,167. Serial No. 249,171. Filed Sept. 8, 1887.

**GRINDING MILL.**—James S. Woodcock, New Lexington, Ohio. (No model.) No. 382,202. Serial No. 239,490. Filed May 26, 1887.

**MACHINE FOR SHUCKING AND SHELLING CORN.**—Louis R. Whiting, Fort Worth, assignor of one-fourth to Alfred Muckle, Bobbin, Tex. (No model.) No. 382,235. Serial No. 234,579. Filed May 26, 1886. Renewed Nov. 7, 1887.

**BALING PRESS.**—Harvey R. Wolfe, Louisville, Ky., assignor of one-half to Brennan & Co., Southwestern Agricultural Works, same place. (No model.) No. 381,975. Serial No. 235,056. Filed Jan. 22, 1887.

Issued on May 8, 1888.

**BELT FASTENER.**—Henry C. Herr, Williamsville, N. Y. (No model.) No. 382,305. Serial No. 266,888. Filed March 10, 1888.

**WEIGHING SCALE FOR RAILWAY CARS.**—Elouid Duplessis, Lake Weedon, assignor to himself and John Roche, Quebec, Canada. (No model.) No. 382,412. Serial No. 234,144. Filed April 8, 1887.

**DETACHABLE LINK CHAIN.**—Reuben F. Redick and

Joseph H. Redick, Spencerville, Ohio. (No model.) No. 382,554. Serial No. 249,665. Filed Sept. 14, 1887.

**CHAIN CONVEYOR FOR HANDLING COAL.**—James M. Dodge, Philadelphia, Pa. (No model.) No. 382,638. Serial No. 252,404. Filed Oct. 15, 1887.

**BELT TIGHTENER.**—John H. Bringold, Albany, N. Y., assignor of one-half to William N. Percy, same place. (No model.) No. 382,587. Serial No. 244,783. Filed July 19, 1887.

## THE PRICE OF WHEAT.

BY R. JAMES ABERNATHEY.

I have noticed that a writer, in *Bradstreet's* I think, attributes the low price of wheat to a depreciation in the value of silver. How a depression in the value of silver can affect the price of wheat any more than it does corn, cotton, iron, or any other commodity, is more than I can understand.

I understand his position is, that because silver has no fixed or standard value in the commercial countries of the old world, but is regulated in value by the supply and demand, or by some other rule which makes it rule much lower than formerly, and as silver is the only currency used in India, it pulls the price of Indian wheat down with it. The usual effect of depreciating the currency of a country is to enhance the value of its products when measured by that currency. At least that was our experience during and after the late war. It will be remembered that at one time wheat sold as high as \$2.85 in Chicago in our depreciated currency, while it probably was not worth more than half that amount in Liverpool in gold.

If therefore a depreciation of the currency enhances the prices of commodities in one country, it ought to by the same law do it in India and other countries.

But even if it be true, as he says, that it has depreciated the price of wheat in India, that alone can have but little effect on the markets of the world, for the simple reason that India does not as yet hold the balance of power in that respect. The largest amount ever exported from India in any one year was about 41,000,000 bushels, while the smallest amount exported from the United States in many years was 94,000,000 bushels, while as much as 186,000,000 bushels have gone out of this country in a single year, and 153,000,000 bushels were exported last year. It seems quite clear from the above figures that this country holds the balance of power in the wheat business, and can, if it will, make the price for the entire world, except in India, and there the pauper nations, having no voice in controlling or shaping their own destiny, might have to take whatever their masters, the English, saw fit to allow them, but even then the wheat would find its commercial level before reaching the distributing markets.

It is always argued by the "wreckers" that wheat must sell low in this country, otherwise foreigners will not take it. This, however, is pure and unadulterated nonsense, false in theory, false in fact, and is used for "wrecking" purposes only. The year in which we exported 186,000,000 bushels of wheat, the average spot price for wheat in Chicago was \$1.15 per bushel, while for the year we exported the 94,000,000 bushels the average in Chicago was but 76½ cents. We have always exported more wheat, as a rule, when prices ranged high than when they ranged low. Foreigners will buy our wheat when they need it, no matter how high the price, and they will not buy more than they need, no matter how low the price. That has been fully and fairly demonstrated.

For a number of years this country produced too much wheat, and in consequence piled up an enormous surplus. We could not consume it at home, nor could we induce foreigners to increase their powers of consumption for the purpose of relieving us, so we were obliged to keep the stuff.

Had the farmers possessed sufficient sagacity to have at once curtailed their acreage, the surplus would have soon been exhausted and the matter of prices regulated, but they did not, and so placed themselves in the power of an enemy far more deadly than any foreign wheat-raising competitor could be, and that is the home "wreckers," who, amid suffering, smile while witnessing the pain that others feel.

In speaking of "wreckers," I of course refer to the "bear" element in the markets of the world. They are not necessarily always "wreckers," but are sometimes useful, and have their proper place to fill. They, however, cannot thrive except in the midst of decay. Buzzards we know fatten on death and decay, but buzzards are useful birds because they keep nauseous things cleaned up and out of the way. But when the animals of all kinds are in a healthy condition, and but few dying, the buzzards have but slim picking and grow thin.

Just so it is with the market bears. When the markets are in a healthy condition, prices good, and the producers making money, the bears grow thin and wan, and occasionally one dies. But when disease sets in, the markets weaken and decay, producers suffer and die, then the bear is in his natural element and begins to smile and grow fat at once. But then, as I have said, the bear element is useful, and should be no more restricted in the speculative markets than the bull element; both should have an equal showing, because without any restrictions, without any attacks from hungry buzzards, otherwise the bears, the bulls might become too zealous in the interest of the producers and their own (mostly their own), and make the great army of consumers suffer more or less. If we tolerate a speculative market we must tolerate both bulls and bears, giving each an equal chance.

But to get back to the question, I will repeat that the farmers of this country placed themselves in the power of the bears at home and of foreign buyers, who are bears by nature, by raising too much wheat, and have lost about \$200,000,000 in the past four years, because at no time have legitimate conditions warranted wheat in averaging below 90 cents in Chicago, because it cannot be raised at a profit for less than that, and in many states there would have been a loss at that price. It is true that a somewhat noted statistician by the name of Edward Atkinson has aided the wreckers in depressing prices by figuring a marvelously low cost for raising wheat in this country, but the difference is that Mr. Atkinson raises his wheat in his office during the daytime, and beside the parlor stove during the evening, while the farmer raises his by following the plow, the harrow, the drill, the reaper, the thrasher, and the wagon to market.

The farmer's experience is an out-door one. He works in sunshine and storm. The scorching heat of midsummer and the chilly blasts of midwinter have all to be endured in making and marketing wheat; hence I say the experience of the man who raises wheat in the field is far more valuable than that of him who raises it beside the parlor stove. However, all that matters but little; the past has gone, and the wreckers have had the best of it, while the producers have been great losers. But there is light ahead. According to government figures, we have during the past three years reduced our surplus over 100,000,000 bushels, that is, in the past three years we have raised that much less than we used, hence the surplus must be getting pretty low. Present appearances do not indicate a crop of more than 400,000,000 bushels—really less than that in the growing crop. If that should prove true, all the wrecking elements in the world combined cannot keep the price of wheat down, because, as I said at the start, we hold the balance of power in the wheat situation and can and will make the prices. Then can the long suffering producers witness the day of retribution, and look on with rejoicing, as one by one a vigorous *taurus* thrusts his Texas-like horns under a sickly and terrified bear and tosses him high in the air.

It is sure to come, and before very long, and many of the wreckers will be wrecked.

## CHILIAN WHEAT.

The *Michigan Farmer*, in a recent article on the "Wheat-producing countries of great promise," speaks particularly of Chili, which some forty years ago supplied the Pacific slope with flour, barley, beans and other products of her soil. When gold was discovered in California and the rush of immigration began, the miners depended for their flour on Chili, from whence it was brought to them in bags of 200 pounds each, and for which they paid \$20 a bag. In 1854 the first steam flour mills were started in the Golden state, and the merchants of Chili, who had become rich through their traffic with the gold diggers, were forced to seek markets elsewhere. In 1853 gold was discovered in Australia, and the growers and millers turned to the new fields which afforded them a rich harvest for many years. Later the Cape of Good Hope was added, and Chilian flour was also shipped to Peru, Ecuador, Brazil, and even to Mexico and Central America. At present Chilian wheat is in great demand in Europe, where it commands the highest prices. It is of good quality, as California wheat and the flour equals that of Baltimore.



## DEFENDING OPTION TRADING.

The fundamental principles upon which modern speculation is based are so thoroughly sound and easy of comprehension, that it seems strange that many good merchants and enterprising men of business still look upon option trading as a sort of commercial iniquity in which no man who lays any claim to good morals, self-respect and strict integrity will be engaged. Under these circumstances, therefore, it is not at all strange that the rural members of our state legislatures should become impressed with the belief that a commercial exchange where option trading is carried on is little else than a gambling shop, and that the laws ought to be enacted to suppress, or, at least, control them, and hence the yearly introduction of measures aimed at this supposed vice. There are thousands of men engaged in trade throughout the country who look upon the stock, produce, cotton, coffee and metal exchanges as the greatest hindrances to legitimate business, who considered their establishment and operation as little else than a commercial calamity, and regard with suspicion all who are members of them, or who engage in their operations. That option trading admits of great abuse, and that it is a powerful instrument in the hands of unscrupulous men for accomplishing harm, cannot be denied, but there is no greater danger from these abuses than there was under what are termed old-fashioned methods. In the present instance, however, it is not with the abuses, but with the broad principle of "option trading" that we would deal, for the purpose of showing that it is nothing more than the natural development that has come out of the increased facilities that now exist for communication with and rapid means of transportation to any and every part of the world. It is the result of land and ocean steam traffic, and ocean cables and electric wires.

Those who, either through ignorance or self will, are opposed to this method of conducting trade, glibly talk about the "good old times" when the value of produce was ruled by facts, and when men were not foolish enough to trade upon probabilities; but this kind of talk is mere clap trap, for the sturdy merchants of the olden time did just as we are doing now, only in a different way. When by the slow process of mails they learned of the prospect of scarcity, they bought largely to sell at a profit; when there was plenty, they sold to buy at a profit. In those days these processes of trade occupied weeks and months, communication was slow, and information of this kind was accessible only to a limited few, who, nevertheless, never failed to take advantage of it. To day, the only difference is that these same processes are now carried on in as many hours as then required weeks, information of this kind is readily obtainable, in fact is sown broadcast; where ten men then ventured upon an operation to arrive, or for shipment, or for forward delivery, there are now hundreds ready and anxious to take the same risk, while the changes and fluctuations are correspondingly rapid, and the result proportionately profitable to those who properly gauge the position. These business men, who are continually dreaming of their ancestors, and asserting that they built up their trades upon very different methods from those now practiced by quick-witted operators, whom they term gamblers, fail to recognize that the question is not how those shrewd men acted years ago, but how would they act now if they had to deal with the existing condition of affairs. They sneer at bears who sell what they do not possess, and call them such hard names as "wreckers," and "highway robbers," failing to remember that the bear is the counterpart of the bull; that the one cannot exist without the other, if the balance is to be maintained; that it is just as legitimate to sell with the expectation of buying cheap as it is to buy with the prospect of selling dear. Under the old regime the advantage was all in favor of the capitalists, for the simple reason that so long as it was possible to buy and not sell in a speculative way, the balance was always against the consumer, and in favor of capital. Under modern methods, a much truer balance can be maintained. Speculative trading to-day is no more of a venture than were business operations fifty years ago; in plain fact, they are less so, for there is really more absolute safety to the merchant to day who, in importing or exporting produce, buys or sells against it upon the exchange. He is in a measure protected, and is not exposed to the heavy losses that in the olden time were liable to occur from shrinkage, while a cargo of produce, be it grain, cotton, coffee or sugar, was in transit. It is quite true that men now trade very largely upon probabilities and possibilities; they eagerly seek to discount the

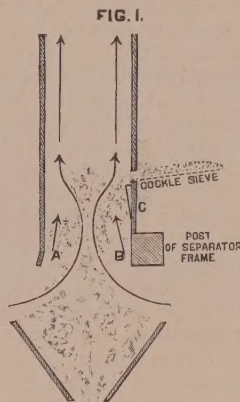
future, to forestall coming events, and, in the majority of cases, these modern probabilities are far nearer the truth than were the ancient acts upon which our forefathers based their faith and belief. It is time, therefore, that the truth of these remarks was more thoroughly understood by those whom they concern, and that business men who consider themselves intelligent merchants cease to encourage the popular belief that it is iniquitous to be interested in speculative trading. Those who denounce exchanges nowadays, by their very denunciations proclaim that they are themselves behind the age, and expose by their irritation their lack of enterprise.—*Shipping List.*

## AIR CURRENTS IN A WHEAT SEPARATOR.

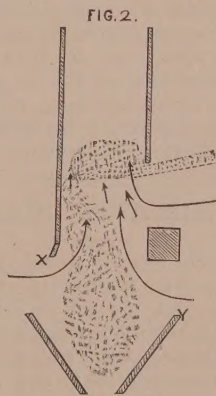
BY WARD STONE, IN "AMERICAN MILLER."

The accompanying cuts indicate two slightly different methods of admitting the air current to the suction chute of a wheat separator; *Fig. 1*, showing the kind of chute used on about all of the separators and scourers now made.

Until recently I have always been unable to make the separator in our mill clean satisfactorily wheat which contained much wild buckwheat, the grain falling from



chute on side A would be well cleaned, while that falling on side B was very poorly cleaned. The machine was set according to directions thereon, and the space be-



tween bottom of chute and the hopper was greater than the directions required.

A short time ago I had the board C removed, admitting the air current as shown in *Fig. 2*, and the machine is now doing excellent work, the improvements being greater than I expected. The space between X and Y can be entirely closed without injuring the work, which shows that it is not the enlarged opening, but a better way of admitting the air current, which makes the better separation. I have observed that now the wheat on entering the chute is projected across the same in almost a straight line, while before its course through the chute was as shown in *Fig. 1*.

The *Toronto Globe* thinks it is too early to predict with any certainty the outcome of the crops, and that reports on the matter must be taken for what they are worth. That winter wheat has suffered to a considerable extent in Canada, as well as other sections of the country, is undeniable, but with favorable weather henceforward, the spring crops will turn out better than anticipated. The late spring has given the farmer ample time for getting in spring grain in, in good condition.

## BUILDING OF ELEVATORS.

BY R. JAMES ABERNATHEY.

Having in the last issue of the *AMERICAN ELEVATOR AND GRAIN TRADE* given some general idea of the construction of elevators, it may not be amiss to follow it up with detailed descriptions of given sized houses.

In doing this we may be able to meet the exact wants of one or more patrons of the paper who contemplate building at an early day. It should, however, be remembered that, no matter how accurately an elevator may be described in detail, there is always a chance to make mistakes in the construction, unless plans are previously made by some one competent to do so. If, therefore, anyone attempts to build by written description alone, and makes mistakes, he must blame himself.

We will start in with a very small house for handling and light storage purposes, and call it 20x24 on the ground. Such a house may be for handling small, loose grain only, or it may be for handling both ear corn and loose grain, and we will therefore describe it for both purposes by commencing with the loose grain house first.

I would advise sinking the entire foundation at least 4 feet below the level of the railroad or switch track, running it lengthwise of the track and about 5½ feet distant from near rail. Remove all the earth and wall it up firmly to, say, 2½ feet above track level, leaving on the track side and end opposite to engine house, two window openings each, and on the local side, or side furthest from the track, an opening should be left about 8 feet wide and the full depth of the wall, the object of which is to run grain from dump to boot of elevator.

In the center of basement lengthwise, and running to the local side wall or right opposite the opening already described in the local side wall, there must be a pit 8 feet square, sunk 4 feet below the bottom of basement, to receive the elevator boots. This pit should be walled up with brick, or a light stone wall will do, or even plank, unless troubled with water, in which case a heavy sheet iron tank must be made to fit the pit. In no case run a basement floor below a high water line when troubled with either spring or surface water, because it would be impracticable to make an entire basement water tight.

Keep the bottom of basement above the water line, and then if the upper edge of the iron tank is placed level with basement floor, all danger of being drowned out is removed, except in case of high floods, when situated near turbulent streams. That of course cannot be very well guarded against.

In the end wall next the engine house a door opening must be left, leading from engine room into basement, also an opening for main shaft. At the bottom of the latter opening, and long enough to extend in the wall at both sides of opening, say 2 feet, should be placed a piece of timber, say 8x10, for the purpose of carrying the outer journal box of engine shaft, unless it should be a self-contained engine, in which case the timber could be used for sustaining a journal box for the main line proper.

This bearing timber should be firmly embedded in the wall, and it would not be amiss to have long bolts running through it and down into the wall, in the same manner as the bed of an engine is bolted to its foundation. That will make it doubly strong and secure, and assure its staying where it is put, and thereby holding the shaft in line. If the outer edge of engine shaft is carried by it, it is absolutely necessary to have it very solid in order to keep engine in line. The location of the opening and position of timber are controlled by the position of the engine, which must be first determined and laid down in the plan of the house. On the lower side of the timber must be left an opening in the wall large enough to work a wrench on the bolt nuts which fasten the journal box to the timber.

The floor of the engine house should be about 2 feet above the basement floor. The engine house should be the full width of building and running outward, say 26 feet. Less than that will do for holding engine and boiler, but does not leave much room for carrying fuel. The walls of the engine room should be of brick. Of course frame will do, but is a little more dangerous on account of fire. It need only be high enough to allow room to work on top of the boiler after it has been bricked in.

The roof should be flat and running with a slight pitch outward from the main building. Tin or sheet iron should be used. The room should be well lighted from the track side.

If at all possible, always use brick for inclosing the



boiler. Stone is sometime used, but always looks as though it was intended for a makeshift.

There are two methods of building the superstructure of the main house. One is to crib it, and the other to stud it, or make it in the balloon-frame fashion. If cribbed, start on the wall with, say, an 8x8 plate all around, after which use 2x4 for the cribbing. After the cribbed wall is about 1 foot high above the stone wall, that is two layers of the 2x4 on the 8x8, stop the walls and give attention to the floor. Place a heavy girder 12x12 through the center of building lengthwise, each end resting in a niche in the wall that must be left for it when the walls are being built. The main walls for a building such as we are now describing should be about 20 inches thick and well built of good stone.

The top of the girder should be level with the top face of the walls, and must be supported by two posts made of 12x12 timber, and so divided as to have the weight equally distributed on them and the posts resting on good rock foundations. The joists must then be laid crosswise of the building, and should be either 18 feet long, so as to reach all the way across the building, or else 10 feet long with one end of each resting on the walls and the other end on the girder. They should be 2x12 and placed about 1 foot apart.

It has been the custom of the writer, for several years, to put down a solid floor before proceeding any further with the superstructure, and then building on the floor, commencing the division walls of the house right on the floor. Nor do I ever hopper the bins in small houses. The grain hoppers itself and runs just as freely as though hopped with wood, and when it becomes necessary to clean out a bin entirely, it is a very small trick to get inside and shovel and sweep it out clean. A house will hold more grain in that way than it will in the other, and besides presents fewer attractive harbors for rats and other vermin.

After flooring the foundation over solidly with good, hard pine flooring, then proceed with the walls both inside and out. First lay off a passage crosswise in the center of the building 8 feet wide, on each side of which start the two center walls. The ends can be divided into as many bins as may be desired, but usually three at each end are sufficient, each bin being about 7 feet 4 inches by 6 feet 2 inches.

That much having been determined on, the running up of the walls can proceed without further interruption to the required height of main building, which will depend on the intended storage capacity. I would not advise running the cribbing over 24 feet in height. Such a building can be made to carry about 5,000 bushels or over above the basement. The 8-foot space laid off in the center of building must be carried to the top of the cribbing, but after the walls have been run 10 feet high above the floor, lay in two 6x12 timbers crosswise the space, with the ends resting on the two space walls. They will require to be about 9 feet long and placed 6 inches apart, so that the center of the space between them will be about 4 feet from the building wall on the local side. On these two timbers commence a hopped bin and carry it up with the walls of the building to the top. The object of the last named bin is to receive dirty wheat and feed to the cleaner. At about the same height on the track side of the building timbers should be built in to sustain a hopper scale of a half-carload capacity. There will then be about 4 feet of space in the center, which must be left open to the top, for stairway and drive belt to go up through.

When within eight inches of the top of the cribbing, four pieces of timber, 6x8 and 20 feet long, must be laid crosswise the building, two at the ends and two between, at regular intervals. These should be bolted to the walls with bolts at least 2 feet in length, and then the cribbing on the side and inner walls continued until level with top of the timbers. The ends of the timbers should be shouldered out so that the 2x4 pieces could be locked in. The object of the four 6x8 timbers is to sustain the cupola, the parts of which must be framed into them.

For the kind of a house (loose grain only, we are now describing, the cupola should be 10 or 12 feet in width, as may be desired, and run the full length of the house, although it may be 4 feet short at each end, if parties would rather have it that way, making it 16 feet in length in all. In that case but three 6x8 base timbers would be required—one in the center and one four feet from each end, and put down as before described. The middle one, however, ought to be 6x10, as there would be but little to sustain it, except at the ends. Before going further, however, it is well to say that in view of making

the cupola narrow, as 10 or even 12 feet would be if it contained any machinery, it will be necessary to make the elevator pit in the basement extend nearer the center of building, and instead of being 8x8 it should be 8x10, otherwise there would not be room enough to work around the boots of the elevators in case of chokes or for other purposes.

The cupola should be 14 feet high from top of cribbing to square, and be covered with a third-pitch roof. The cupola should be a regular frame, and not a balloon, such as every builder understands how to make; should be well fastened to the main building, and thoroughly braced so as not to blow off. There should be windows enough to afford plenty of light.

To make the house balloon-frame style, instead of a crib, 2x8 studding should be used for the main building, and 2x6 for the cupola. The corner posts of the cupola should run from the foundation walls, or plate that sets on the walls, to the top of the cupola. In this house they would have to be 38 feet long and be made of 2x8 stuff spiked or pinned together. In that manner the cupola can be securely fastened to the main building and cannot very well be blown off without taking the building with it. The general method of erecting a balloon-frame is so generally well known that a detailed description here is unnecessary. The same general plan in shaping and framing the building must be adhered to. The passage way through the center must be left, and the timbers for sustaining the dirty wheat bin must be placed according to previous instruction. But for supporting the weight of the hopper full of grain, the building should be made a little stronger at that point. In fact, a 10x12 girder should extend crosswise the building on each side of the passageway, on which 10x10 posts can be planted to sustain the timbers under the dirty bin, also for supporting the hopper scale, which every grain dealer will find to be important to have in his house, because when he sends out a carload of grain he knows exactly how much it contains, and will not be at the mercy of commission men who are so apt to discover shortage in every car of stuff received by them.

The bins of a frame house must be well rodded to keep them from giving way and bulging out when loaded with grain. At the base the building can be laid out in squares of from 3 to 4 feet each way, and a rod placed in the corner of each square. As the top of the building is approached, the distance between the rods can be increased and fewer used.

A cribbed building run up entirely with 2x4 plank should have a few rods running through the bins to stiffen them up. The frame house should be strongly sided on the outside, and no lining used on the inside, because it is useless, requires a great deal more lumber, and largely reduces the storage capacity of the building.

In my next will finish the description of this building.

## GRAIN TRIMMERS' GRIEVANCES.

There is trouble brewing among the Chicago grain trimmers. They object to a few bosses running the whole business, and by their peculiar methods preventing the men from earning as much as they otherwise would. The trimmers work in gangs, each with a foreman who does the ordering about, and but precious little of the work, but gets the same wages as the workmen. The men are paid at the rate of \$1.50 per thousand bushels of grain for trimming. For a vessel loading 100,000 bushels, \$1.50 is paid. Ten men can do the trimming, which will give each man \$15 for the day's work. Of this the boss gets his share, and when he has, as often happens, several vessels and as many gangs at work at the same time, his day's income will run up into the hundreds. However, he is apt to be too grasping, and now is not satisfied with even this princely sum. He therefore seeks, by reducing the number of men, to increase his share of the profits. While the men employed also share in the increased wages, eight men doing the work of ten, it is obvious that many of the men are thrown out of employment, and this is the grievance of which the Trimmers' Assembly has complained to Mas'er Workman Powderly.

One of the smallest manuscripts in the world is said to have been recently offered for sale in London. It consists of a grain of rice, on which is written the whole of the first chapter of the Koran. It was given to an English officer in 1812 by an American gentleman who received it from an Arab sheik whom he had cured of a dangerous fever in the desert.

## TRADE IN THE SOUTHWEST.

[Special Correspondence.]

KANSAS CITY, Mo., May 12, 1888.

I have just returned from the counties bordering on the Indian territory along the southern line of Kansas. A month ago the outlook for winter wheat was decidedly blue and there was a good many parties who had decided to leave the country and return to their old camping grounds in Illinois and Missouri. The past month, however, has seen a decided change of base in this respect, and instead of the country being emptied it is being filled up with an energetic, thrifty class of men, as has never before been the case. With reference to that country it must be remembered that during the past two years crops of all kinds have been a failure. At the opening of the present year the ground was parched dry to a depth of from five to twenty feet. It was well known that in order to insure a fair crop bountiful rains would have to be experienced right along until late in the spring and early summer. This condition of affairs has existed, and it was said by the older settlers down that way the total rainfall for the month was in excess of that ever experienced before. It is no wonder then that the doubting Thomases took heart again and went into the field to plow their holdings with sanguine hopes of the immediate future. The acreage planted in wheat is small. This is unfortunate, but it could hardly be expected otherwise.

The drouth of years past has left the average pioneer settler in a poor condition, and last fall he found he had not sufficient grain for planting. He had already mortgaged his farm for all it was worth, or rather for all he could get the loan companies to advance on it, and therefore he had no show for a sufficient amount of seed wheat. This spring, however, since the country has become so well watered, these same loan companies have gone into the open market and bought a lot of corn which they sell the farmers on time, taking their notes for payment of the same as soon as the crop is marketed. To be sure they charge a good rate of interest, but there is not one of these poor farmers but who is glad to avail himself of what he thinks is a great condescension on the part of the loan agents. As a matter of fact it is not. These investment companies were bound to give the farmers down there every advantage to secure good crops or lose what money they had already advanced on the holdings. It is well known among them that there is nothing that works against a country to a greater extent than bad crops, and on the other hand there is nothing which enhances values of property more liberally than bountiful yields. It was then the only business proposition left to them, and they grasped the chance with avidity. Throughout the southern tier of counties then there is every prospect for a 200 per cent. yield of corn, as it is claimed that there is more than three to one acres in the ground at present than has been the case before. As to wheat the same is not true. The counties down there are barely holding their own. This year it is thought that the farmers will be obliged to harvest their corn to a great extent and immediately send it to market in order to meet payments due on their farms. The trouble with this new country is that there are few cattle and hogs to be found there now. The country is too new for this. It will probably be three or four years before there are many cattle running over these southwestern counties.

In the meantime there will be a great demand for elevators all along the lines of the new roads being pushed through the territory spoken of. Within a stretch of 150 miles along the extension of the Atchison, Topeka & Santa Fe to the west of Mulvane, I did not find an elevator. Why capital has not already anticipated the demand that will be had the coming fall I am unable to understand. Once in a while I found an agent going through the country trying to get public favor for elevators, but their reports of success were few and rather disheartening as a whole. They told me the trouble was that there was not enough money in the country. It would seem then that outside capital should come to the rescue. I can think of no better investment than a chain of elevators all through this land of great promise. The different lumber companies of the North have established good plants for the sale of lumber, and these yards are paying a good dividend as a rule. One company alone has over forty yards distributed along these Southern railroads, and the returns to the amount of funds invested is large. Why Northern elevator men cannot work the same so far as elevators are concerned, I cannot under-



stand. It must be remembered that those who go first into the field will have the pick of locations and trade. They can get corn at almost their own figures and will be able, to a great extent, to be a controlling factor in the market for this commodity throughout this territory. There is no better chance for a paying investment of a large amount of capital than right in this direction.

There is a wealthy gentleman in this city who started out in this way. At the time the Kansas Southern Railroad was being built he organized a company of rather limited capital and had put up at the various more promising towns along the line small elevators. He found within a couple of years that he had the finest system of elevators in the state. He could command any amount of corn and wheat, and at almost any price in reason he saw fit to pay. As the country became more developed and competition became stronger, one by one he disposed of his holdings until last year he had but two elevators along the whole system as compared to fourteen a few years ago. Within eight years the man has made his fortune and was consequently able to live on the fruits of his forethought and labor. There is plenty of room for others to follow in the footsteps of this gentleman. I know that there are many who will declare that times are not what they used to be. It is a mistake. There are just as good opportunities for parties to realize good fortunes on elevators now as ever. They should be put up at a minimum expense, to be sure. The needs of the country for five or six years should be looked into closely and when it is known the elevator should be born, and nine cases out of ten it will begin to be a paying institution from the first opening of the same.

I am aware that parties will be apt to claim that if there is so much money in this class of enterprises that those who live upon the ground would be keen to take hold of the scheme. But as above referred to, the people are too poor to undertake it. The age of superfluous capital has not as yet been attained by the citizens of this country, and no matter how much they may desire to do so they cannot for the lack of funds.

We are hearing a good deal about the Indian territory just now. According to popular rumors there is no section of the United States equal to this body of land for producing purposes. This idea is entirely chimerical and deceptive. There are some sections of the more eastern portions which are fine farming lands, but when one gets west of the Atchison, Topeka & Santa Fe Railroad the country is very unpromising for raising anything else than cattle and sheep. As a rule a good stock country in the Southwest means a land where it is next to impossible to carry on farming operations on a paying basis. The western sections of the Indian territory is a good stock country; of this there is no doubt; and there is equally no doubt but that it is a very poor farming country. It is a land where elevators will never be known. Flouring mills will never be put into such a country, for the reason that there is no wheat or corn to grind, and very little fuel with which to run the plant. As for flowing water, there is none if we except the few freshets experienced in the spring of the year and after some heavy shower, and these are not of more than a day's duration.

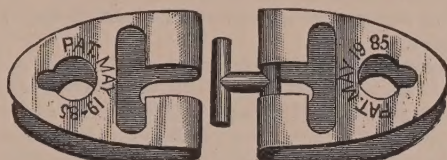
The local elevators have not been doing much business the past month. The visible supply has lessened a good deal. At present there are 65,164 bushels of wheat, 54,966 bushels of corn and 59,478 bushels of oats stored away in them. It will thus be seen that the outgo has been rather liberal while the fresh supplies have been quite light. It appears to be the general impression that there will not be a large yield of wheat throughout this section the coming months. All the reports coming to hand are to the effect that the crops will be decidedly slim, not so much on account of the poor crops on the acreage sown, as because of the limited acreage. This is the season of the year when all repairs are being made to the elevators for the coming season's business. This season there will be but little done. No new elevators are to be erected, as it is believed that the present capacity is sufficient for all demands of the trade. Trading has been much more limited than ever before in the history of Kansas City, since it became a central distributing point for wheat and corn, and there is little prospect of any decided change, until at least the new crops come to hand. There are not more than half the number of grain commission firms in the business as were last year at this season, but it is predicted that there will be an increase as soon as the summer months have given way to the activity which may be experienced in the fall.

The Sioux City corn palace will cost \$100,000.

### THE ESSIG DETACHABLE BELT FASTENER.

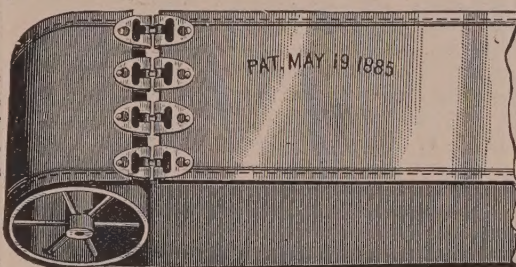
The first of the illustrations herewith given shows the full size of length and width of the Essig Detachable Belt Fastener. The second cut shows its application to the belt. This convenient little device is claimed to possess many important advantages for the purposes for which it is adapted. First in importance is the great saving of time when a belt is to be repaired or mended. Another consideration is their strength and durability, making them a very cheap method of fastening belts.

Adverting to advantages of this Fastener, the manufacturers say: "Their double joint will allow them to give and pass smoothly over any size pulley without the least injury to the left whatever. They will wear longer, and also will run with less jar or noise on both sides of the belt



THE ESSIG DETACHABLE BELT FASTENER.

where a tightener is used better than any other way of fastening. They will not slit or tear out the ends of any kind of belting, as they form a vise clamp to the belt,



ESSIG FASTENER APPLIED TO BELT.

clamping a space of  $\frac{5}{8}$  of an inch in width, which prevents all wear and tear on the rivet hole; therefore, it will remain firm as when put on, while all other modes of fastening belts wear the most at the rivet hole or place where the fastenings are applied, thereby making a starting point, and will, in a short time, slit or tear out, injuring the belt to a great extent. But this can all be prevented very easily by using the Essig Detachable Belt Fasteners.

"They are the only Fastener ever invented that will pass under a tightener as well as over a pulley without injury to it or the ends of belt in the least. They are the only Fastener ever invented that protects and strengthens the ends of the belt and hold until completely worn out."

In order to see and test the pulling strength of the smallest sized Fasteners, one No. 19 was put on a new piece of four ply rubber belting. It pulled 565 lbs. At this point the belting gave way and the Fastener took out a piece just the width it clamped. Two No. 19's were then put on a new piece of three ply cotton, and pulled 550 lbs., the belt tearing in two, one inch above the Fasteners. In both cases the Fasteners were not broken.

This Fastener is sold by the H. J. DEAL SPECIALTY Co. of Bucyrus, Ohio, who will give particulars, testimonials, etc., on application.

A young St. Louisian by the name of J. H. Kehlor, who has just reached his majority, has been astonishing the bears and bulls of Detroit by his daring plunges in puts and calls, and his successful deal in one day whereby he pocketed \$10,000. He is one of the largest malsters in the world, a Board of Trade man, and has \$500,000 in his own right.

In an interview the other day, Diamond Joe Reynolds said: "My post-office address is Chicago, but a letter addressed to me by my nickname, 'Diamond Joe Reynolds,' will reach me anywhere. It is funny how nicknames stick to a man. There is a Joe Reynolds in Chicago, and my letters addressed without the nickname sometimes go to him. If I were walking the streets of Chicago and a man should call out 'Hello, Reynolds,' I would think it was another man he wanted, and would pay no attention to him; but if he should sing out, 'Hello, Diamond Joe,' I would turn round, knowing that he meant me. I don't expect to live long enough to get over 'Diamond Joe.'"—Chicago Tribune.



[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

### A CORRECTION.

Editor American Elevator and Grain Trade:—The quantity of "Magee" buckets delivered to the Santa Fe elevator by us was nearly 7,000 instead of 1,000, as stated in your issue of April 15.

Yours truly,  
Chicago, Ill.

WELLER BROS.

### A BAD OUTLOOK.

Editor American Elevator and Grain Trade:—Inclosed please find \$1 for the AMERICAN ELEVATOR AND GRAIN TRADE, commencing with the May number. I find useful information in its columns for elevator men.

The growing wheat crop of this part of the country will prove much worse than reported—is daily growing worse. The weather is cold and dry with frosts nearly every night. I do not think it possible now for the counties of Coles, Effingham and Shelby to raise wheat enough for bread and seed. Farmers are very much discouraged. Stock is in very poor condition, and will have to be fed throughout the present month.

Yours truly,  
Mattoon, Ill.

GEO. F. GOULD.

### THE MCEVOY BILL.

Editor American Elevator and Grain Trade:—There have been lively times in the New York legislature lately over Mr. McEvoy's grain elevator bill. It finally passed the Assembly by a vote of 79 to 21, and there is every indication that it will pass the Senate by a large majority. Some people think Gov. Hill will veto the bill, but I can't believe he would dare to do such a thing, for not only the people of York state, but the farmers of the entire Northwest are interested in the matter.

The bill as passed the Assembly reduced the elevator toll on one boatload of wheat, 8,000 bushels, an even \$100, or  $1\frac{1}{4}$  cents a bushel. This is  $\frac{1}{4}$  of a cent more than was gained by the free canal amendment in 1882, for at that time tolls on wheat and corn had been reduced to one cent a bushel.

Moreover, Mr. McEvoy's bill will aid the boatmen more than \$10,000,000 expended on canal improvements would. A reduction of elevator tolls  $1\frac{1}{4}$  cents a bushel gives canal commerce immediate relief, whereas it will be several years before the proposed canal improvements are completed and the boatmen would have to wait that long to get the full benefit of the one cent a bushel by that method.

Yours resp'y,  
Jersey City, N. J.

M. DE PUY.

A miller in Ontario, Can., recently purchased through his agent a quantity of wheat from a farmer, which he ground up into flour. A lawyer soon afterward informed him that his firm held a mortgage on the wheat for money loaned the farmer on his growing crop, and that it consequently belonged to the firm, and the miller must pay them the same amount he paid the farmer. The case was brought into court, and the unfortunate miller made to pay the second time for the wheat.

The total number of elevators in Chicago is twenty-seven. In these over \$10,000,000 capital is invested. They employ about 600 men, to whom an average rate of \$2.50 per day is paid, making a monthly pay-roll of \$45,000. During 1886 there were received by vessels 8,379 barrels of flour, 29,361 bushels of wheat, 3,000 bushels of barley, and 3,980 bushels of oats. The shipments by lake for the same period were 1,391,235 barrels of flour, 10,513,126 bushels wheat, 40,956,177 bushels corn, 3,219,833 bushels oats, 114,025 bushels rye, and 282,946 bushels barley. The total capacity of these elevators is 27,025,000 bushels. The completion of the largest elevator in the world, now being built on Goose Island by the Chicago, Milwaukee & St. Paul Railway, will add a capacity of 4,000,000 bushels.





The Chas. Munson Belting Company has been licensed to incorporate at Chicago. They have a capital stock of \$100,000.

The E. H. Pease Manufacturing Company of Racine, Wis., manufacturers of grain cleaning machinery, the Crosby Rapid Transit Wrench, pulleys, etc., report business good and rapidly increasing.

The Frost Mfg. Co. of Galesburg, Ill., in a recent letter says: "Prospects for a big trade were never better with us at this season of the year. The recent rains in Iowa have put new life in all lines of trade, and elevator business is good."

George B. Carpenter & Co., 202-208 South Water St., Chicago, general mill supplies, hose, packing, cordage, etc., report trade and business picking up quite lively in anticipation of navigation opening soon. They anticipate a general good trade all through the coming spring and summer.

The Robert Aitchison Perforated Metal Company, 76 Van Buren street, Chicago, have recently closed contracts with the Hercules Manufacturing Company of Cardington, Ohio, Cranson, Huntley & Co., Silver Creek, N. Y., and the Minnesota Thresher Manufacturing Company, Stillwater, Minn., for their supply of perforated metal for the season. This company recently made a large shipment of their goods to South Australia.

The Babcock & Wilcox Co., New York City, placed the following boilers during March and April: Philadelphia Co., Westinghouse Building, Pittsburgh, Pa., 152 H.P.; Oneida Community, Limited, Community, N. Y., 61-H.P.; L. Sterne & Co., Limited, London, second order, 10 H.P.; Walker Bros., London for Ceylon, seventh order, 20-H.P.; Perera & Portabolla, for export, 122 H.P.; Alex. Marr, Aberdeen, Scotland, 50-H.P.; Nelson Bros., Limited, London, England, 120 H.P.; South Bend Iron Works, South Bend, Ind., third order, 150-H.P.; Cie Francaise d'Elairge Electrique, Paris, France, 136-H.P.; Alex. Smith, Aberdeen, Scotland, 20-H.P.; La Refineria Barcelona, Spain, 208 H.P.; Asa Lees & Co., Limited, Bombay, 372-H.P.; S. L. Forranti, London, England, 85-H.P.; W. E. & J. Rigden, Faversham, England, 130 H.P.; Cornell University, Ithica, N. Y., second order, 500-H.P.; Belasario Zayas Bazan, New York, for export, 51-H.P.; J. Arce & Co., City of Mexico, 30 H.P.; Gordon, Strobel & Laureau, Philadelphia, Pa., eighth order, 136 H.P.; London Electric Supply Corporation, London, England, 3,000-H.P.; J. H. Stewart, Withington, for Bahia, Brazil, 62 H.P.; Willward, Bradbury & Co., third order, Liverpool, for Brazil, 83-H.P.; A. B. Barry, Moscow, Russia, eighteenth order, 164-H.P.; Fisher & Co., Huddersfield, England, 108 H.P.; M. Crespo & Co., Havana, Cuba, 136 H.P.; Heaton Button Fastener Co., Providence, R. I., 92 H.P.; Walsh, Lovett & Co., Birmingham, England, 102-H.P.; London Electric Supply Corporation, London, second order, 93-H.P.; Schwartzkopf Co., Berlin, Germany, 230-H.P.; Henry Maurer & Son, Maurers, N. J., 244-H.P.; Louisiana Sugar Refinery, New Orleans, fourth order, 480-H.P.; Troy Steel and Iron Co., Troy, N. Y., third order, 1,248-H.P.

William Watson of Minneapolis, Minn., well known to the grain trade, is the inventor of a machine which will probably revolutionize the work of digging trenches for gas, water and sewer pipes, or any work of that description. By its use the owners claim that they can dig the trench, lay 1,200 yards of pipe and cover it in a day with a half-dozen men. The machine which is to effect this revolution is an odd-looking apparatus 60 or 70 feet long and about 12 feet high. It is divided into two parts. The fore part does the digging, and consists of a light iron frame, 8 feet square, on which is movable a small 4-horse power upright reversible engine. This supplies the motive power for a simple piece of machinery which drives two knives which are attached to two shafts working perpendicularly. The trenches can be made of any desired width, and the knives cut to a depth of thirty feet. The rear part of the machine is connected with the fore part, and can be made any desired length. This part has an 8-horse power engine, which furnishes the power for raising the dirt from the trench, carrying it back to the rear a

distance of 50 feet and dumping it into the trench again after the pipe has been laid. The dirt is taken from the trench by elevator buckets attached to an endless link-belt chain, running on what is called the "elevator-leg," which may be of any length, reaching to the bottom, no matter how deep the trench. This leg is movable from side to side, being thus made adaptable to any width of work. As the dirt falls from these buckets into a box connected with a trough in which is another link-belt chain with carriers attached, it is carried to the rear as already mentioned. The machine avoids the hindrances to traffic so annoying in the present system of laying pipes, as it leaves everything clean in its path. The machine and the patents thereon are owned by Mr. Watson, J. A. Hilliker and A. B. Merriam.

## THE GOVERNMENT CROP REPORT.

The Department of Agriculture report for May is as follows:

Low temperature and deficient rainfall, with drying winds and some frost, have reduced the condition of winter wheat in the Central states, and it has also been cool on the Atlantic coast, and not favorable to improvement, and yet the plant has nearly held its own in this region.

On the Pacific coast only a medium development is reported. In the Southern states changes are slight, several averages being the same as last month. Pennsylvania shows a decline of 4 points, New York 16, Ohio 12, Michigan 12, Indiana 6, Illinois 7, Missouri 2, Kansas 3; the general average is reduced 9 points, or from 82 to 73. Last year's condition was reduced from 88.1 in April to 85.8 in May. State averages of winter wheat in the principal states are as follows: New York, 76; Pennsylvania, 87; Virginia, 90; Ohio, 56; Michigan, 64; Indiana, 59; Illinois, 57; Missouri, 80; Kansas, 94; Texas, 90.

Winter rye remains very nearly as in April, the average being 92 instead of 93.

The condition of winter barley is 88, promising a medium crop.

Spring plowing is not quite so well advanced as usual. It is relatively later in the more Northern states of the Atlantic coast, slightly later than usual in the Middle states, and scarcely up to a full average in the South; its progress is an average in the Ohio Valley, but late in the Northwest, especially in Dakota.

The rate of wages of agricultural labor shows that no material change has occurred since the last previous inquiry in May, 1885. There is a slight increase in New England, in the Northern tiers of states from Michigan westward, and in some of the Southern states; there is no appreciable change in the Central states. The May report will give rates by states.

NATHAN J. COLEMAN,  
Commissioner of Agriculture.

The following table shows the condition of winter wheat in April, May and June, and the crop for the years named. The comparison is valuable not only between this and previous years, but as showing changes from month to month:

	April.	May.	June.	Crop, bu.
1888.....	82	73		
1887.....	88	86	84.9	293,000,000
1886.....	92.5	95	92	302,000,000
1885.....	76	70	62	211,000,000
1884.....	94	94	93	356,000,000
1883.....	80	82.5	75	285,000,000
1882.....	104	100	99	384,000,000
1881.....	85	88	..	283,000,000

## THE WICKED SHORTS.

Mr. George O. Jones of New York has undertaken to prove to Congress that Mr. Rumsey of Chicago was correct in the assertion he made before the Chicago Board of Trade, that the short sellers were wreckers and deserved the penitentiary more than the boddlers did. In his argument before the House Committee on Agriculture in favor of a bill to prevent dealing in futures, Mr. Jones presented the statistics of the subject, giving the highest, lowest and average prices of wheat in England annually, from 1863 to 1887, for the purpose of showing the great fall in prices. In 1883 the highest price was \$1.30½, the lowest \$1.18¼, and the average \$1.24½. In 1887 the highest was \$1.09, the lowest 85¼ cents, the average 97 cents. The price in 1883 was 56 cents a bushel less than the average for the previous twenty years. He thought the competition with India had nothing to do with the decline in prices.

Mr. Jones then presented tables comparing the average export prices of farm products in the three years 1885,

1886, and 1887 with the averages from 1854 to 1861, the averages from 1860 to 1869, the averages from 1868 to 1878, and the averages from 1876 to 1885. Assuming the annual crop of corn at 1,500,000,000 bushels, of wheat 450,000,000 bushels, of cotton 2,700,000,000 pounds, and of butter and cheese of a value of \$700,000,000, Mr. Jones figured out the loss to farmers resulting from the decline. Comparing the prices of the last three years with the prices for 1868 to 1878, on the above mentioned quantities, he concluded that the decline had robbed the farmers of nearly \$1,000,000,000. Making the comparison with the more recent period of 1876 to 1885 the decline meant a loss to the farmers of nearly \$400,000,000. The decline could not be attributed to over-production. The aggregate European production of wheat in the three years 1885, 1886 and 1887 was 78,000,000 bushels less than it was in the three years 1882, 1883 and 1884. Our own wheat crops for the three years 1885, 1886 and 1887 averaged 20,000,000 bushels less per annum than in the eight years from 1877 to 1884.

Mr. Jones is firmly convinced that the causes for this state of affairs are, first, a combination of the capital of the world to control the law-making power and force the latter to reduce the volume of money until the producers were compelled to sell at any prices capital fixed; second, that nearly all the Boards of Trade are used to accomplish the same result. To prove this he quotes from various reports, dispatches, and articles in commercial papers, going to show that the "shorts" were the cause of the depression of the markets. Mr. Jones believes that the prices of American farm products are arbitrarily fixed by the cliques and Boards, and have no connection with the cost of production, supply or demand, or any other natural law.

## DULUTH GRAIN TRADE.

Gen. George C. Welles, secretary of the Duluth Board of Trade, has issued his annual report. It contains over one hundred pages and in it the grain trade of Duluth is thoroughly written up. Gen. Welles says the year 1887 will be long remembered by all engaged in the grain business as a year full of vicissitudes and perplexities which taxed the courage, abilities and finances of every one interested in handling and dealing in wheat. He reviews the ruinous grain deal in Chicago, the unsuccessful wheat corner in San Francisco, and the resultant failures in each case of prominent grain firms in nearly all the principal grain markets of this and foreign lands. He says that at the opening of the year all the warehouses at Duluth were practically full, and no more wheat could be received until the completion of the new elevator of the Lake Superior Elevator Company, April 27. Owing to this lack of storage it is estimated that several million bushels of wheat were lost to the Duluth market and directed to other channels during the period from January to April 27. In May and June the grain was attracted to Chicago by the extravagant prices there ruling, and July and August as usual were light months. September proved a disappointment, as the wheat they had expected to receive from Northern Minnesota and Dakota was bought up by Minneapolis to replace the large amount they had sent to Chicago. The result was that the receipts for the month at Duluth showed the remarkable falling off of over 4,000,000 bushels from the same month in 1886. The total receipts for the year were but 17,136,275 bushels, against receipts of 22,424,950 bushels for 1886. The shipments, however, were larger than for any preceding year in the history of the city, aggregating 19,761,586 bushels of wheat, to which may be added about 250,000 bushels of corn and other coarse grain, making a total movement of 20,000,000 bushels of grain. The report says that while the Duluth Board, in common with all other exchanges in the country, seriously felt and shared in the greatly decreased amount of speculation in grain circles during the last half of the year, yet the grain trade was never on a more firm and substantial foundation than at present, and that no primary market in the land has so strong a position for the future growth and increase of its trade as Duluth.

Gen. Welles then discusses the future of the grain trade at Duluth, and refers to its great elevator capacity now 19,000,000 bushels and soon to be increased, and its many natural and acquired advantages. He also condemns the action of the State Board of Warehouse Commissioners in regard to the wheat inspection at Washburn. He advocates the erection of one or more flouring mills to create a local demand for the wheat, and holds out many inducements for such an investment.





## INCIDENTALS.

A cereal story—Lying about the grain yield.

Wheat is "threshed" for the purpose of getting out the grain; a boy is "thrashed" to get out the chaff.—*New Haven Register*.

A Chicago operator commenting on wheat says: "There are too many chinch bugs and too few bears to have a big advance."

"Improved grain" swindlers are doing up the unsuspecting farmers in Lewis, Braxton, Webster and other counties in West Virginia.

California is booming the price of wheat, and yet the papers state "the coming crop will demand 25,000,000 new sacks." That don't look alarming.

The "end man" of a well-known minstrel troupe has embarked in the grain business. We suspect he has become a "middle man."—*Norristown Herald*.

The famous Nevada Bank of San Francisco on May 11 paid ex-Senator Fair the \$2,000,000 he lent that institution to tide it over the wheat deal troubles.

Traill county, Dak., raised last year 3,700,000 bushels of wheat. This estimate was made after a careful investigation of elevator receipts in the several towns.

Connors Bros., St. Louis grain merchants, have commenced \$100,000 damage suit against the Vicksburg & Meridian Railroad Co., alleging unlawful discrimination.

Egyptian corn is found to do exceedingly well in California, and indeed on any land where the natural grasses ripen and dry out, as they do in that section of country.

There are in all seven species of parasites known to prey on the Hessian fly. Miss Ormerod, an English woman, famous for her insect knowledge, has hatched them out and classified them.

Little Laura Jones at Eatonton, Ga., is the latest baby wonder to be heard from. Although only eleven years old, she has invented a plow and a grain elevator that are said to show remarkable ingenuity.

Wheat receipts in Duluth for the month of April were 1,200,212 bushels, nearly six times as much as a year ago. There was a small handling of corn and oats, with none at all last year. This is the heaviest grain handling of any April in Duluth's history.

New Orleans now has through its Pan-handle route, direct connection with Kansas City and Omaha, and is waking up to a sense of its commercial importance, and in the near future sees itself the great reservoir and distributing point for grain to the European markets.

Reports from traveling men and agents of grain and agricultural firms through the winter wheat belt, giving the condition of winter wheat up to April 23, indicate a yield of 50 per cent. of an average crop in Indiana and Illinois, and of 65 per cent. in Ohio and Michigan.

The present price of corn averaging 56 cents, is considered by some a high figure, but in 1882 when both the visible and invisible supplies were much greater than now, corn was quoted April 19 at 76 cents. The only wonder is that prices are not much higher than they are.

The Omaha corn palace is not to be a corn palace nor a grain palace, nor anything else so simple and unpretending. It is to be a grand "Temple of Ceres." Plain, everyday corn palaces are not classical enough for Nebraska's metropolis, center of pork packing and culture.—*Wayne Herald*.

Mr. Murphy's bill in the New York legislature to prevent reckless speculation in stocks and bonds was defeated. It provided for an annual fee of \$5 of brokers and dealers in stocks, and a state tax of \$5 on every 100 shares of stock sold but not actually delivered. It was aimed at the bucket-shop nuisance.

A farmer in Rush, Ill., sends to a Galena paper the following as a preventive to keep the cut-worms from eating the corn planted on sod. He says it has never been known to fail: Take half pound of copperas to one bushel of seed-corn. Dissolve the copperas in hot water, and after dissolved add enough warm water to cover the corn. Let the corn soak in it over night, then pour off the water

and plant the corn. If you want to plant with a corn planter, spread the corn out and dry it. If the corn should be discolored, don't be alarmed.

A Michigan farmer who had placed a quantity of wheat in a mow in his barn, has discovered that the English sparrows have been feasting on the grain until they have eaten almost every kernel from the straw as far down into the mow as his arm could reach. He is now convinced that the foreign nuisance must "go."

A big North Dakota wheat buyer has been predicting an advance in prices. The basis of his philosophy is that the culture of this cereal has been so long unprofitable that many regions have gone out of it, and that the total yields will be so materially reduced thereby that prices of what is grown must be better than heretofore.

Among the results of experiments made to ascertain the temperature at which various seeds germinate are the following: Rye and wheat at 32°, barley and oats at 35°; corn required 48°, the turnip 32°, the pea 35°, the beet 40°. The seeds were planted in vegetable mold that was kept in receptacles heated to various temperatures.

Mr. A. O. P. Corning of California, who has been raising the new beardless barley, says that after it is threshed it looks just like common barley. It makes a fine hay, as it has no beards to make the mouths sore, and is used extensively for cattle in that state. Another kind raised by Mr. Corning is called nude barley. It has beards, but when threshed it shells out of the hull as clean as wheat.

A grain elevator firm in Toledo has been detected in sending out carloads of grain, the under-billing of which was 12,000 pounds to the car, or more than 25 per cent. The Michigan Central, which took the freight, has demanded pay to cover the shortage, and now weighs every carload of grain that is loaded at Toledo on its own scales, not even trusting to the new weighing and inspection bureau.

Arrangements have been made between the postal authorities of this country and Canada, establishing a uniform rate of postage of one cent per ounce on all merchandise, including grain, seed cuttings, bulbs, scions and other grafts, and one cent per two ounces on printed matter, in the mails exchanged between the two countries and now known as third-class matter. This arrangement went into effect May 1.

A Kansas man circumvented the chinch bugs by sprinkling the ground between his wheat and cornfields with kerosene oil, and the bugs did not cross the sprinkled space. Another plowed a ditch ten or twelve inches deep, and by keeping it dusty by dragging a log over it, kept out the bugs. A third used tar, a stream from the spout of an old tea kettle keeping them at bay, but this was rather expensive and had to be renewed every other day.

The Chicago *Herald* states that one of the best known general railroad managers of the West says: "The Rock Island Road has about 1,500,000 bushels of corn cribbed along its line, which is likely to come to the Chicago market. The St. Paul has perhaps 1,000,000, and the Northwestern probably from 2,000,000 to 3,000,000. The Chicago & Burlington has very little, notwithstanding its talk of receipts to come. There are from 5,000,000 to 6,000,000 bushels of corn cribbed at stations likely to come to Chicago if prices are made attractive."

The following occurs in a speech by Mr. F. A. Faxon, at a reception given by the Commercial Club of Kansas City, to visiting business men: "I shall never forget my first impression of the Kansas prairies. Yet to-day the farmer in youthful life rests in the shade of trees of his own planting. Where is the desert now? In 1883 corn enough was raised in Kansas to form a wagon train around the globe, and it reminds me of the school girl's composition, which was something like this.

"Corn bread is rough,  
Corn bread is tough;  
But God bless us all,  
There is corn bread enough."

The Mankato (Minn.) *Review* says that the cordage company which controls the manufacture of binding twine in this country has purchased the entire importation of sisal and other vegetable substances used in the manufacture of twine, excepting 500,000 or 600,000 pounds which the harvesting machine companies got possession of. The price paid was 6½ cents per pound, and the company at once put the price to 8½ cents, which the twine manufacturers not in the trust will have to pay; the cost of manufacture is about 4 cents per pound, but to keep the latter out of market the cordage company has

placed the price of twine at about 11½ cents per pound. Without the tariff twine might be bought for 9 and 10 cents, but with the tariff and "the trust" together, the price will range from 13 to 15 cents per pound, and the farmers of Minnesota and Dakota will have to pay it. So much for the benefits of "a trust."

The owner of a plantation down South offered a slave his freedom if he would bring him an ear of Indian corn having an odd number of rows. The slave searched in vain among the ears of that year's crop, and might have given the thing up had not the desire for freedom sharpened his wits. Next season he picked out a growing ear at the proper time, gently drew back the husk, and carefully destroyed a row. When ripe, he presented the ear to his master and gained his liberty.

The *Tradesman*, a Southern journal, says: "Would it be a surprising thing for American wheat to create a political revolution in Russia. More improbable things than that have happened. American and Indian wheat competition has brought about a continuous fall in the prices of agricultural products. The displaced labor has no other ready means of employment. The steady impoverishment of agricultural proprietors has resulted in a decline in the importation of agricultural implements in the ratio of from fifty in 1880 to thirteen last year.

California farmers have one great advantage over those of the other states; they have no fear of rain spoiling the crops after they are harvested. Their barley is grown during the wet season, and if rain enough has fallen it is bright and of good weight. After threshing it is often left on the ground in bags for weeks at a time, until convenient to send to market. The farmer needs no barns for his grain, a good supply of bags being all that is necessary to protect his crops, for the rainy season once over, sunshine and clear skies are the rule for the rest of the year.

The report of the Ohio State Board of Agriculture shows a decided falling off in the condition of winter wheat from the report issued early in April. It is estimated that the condition has decreased 10 per cent., making it now stand at about 60 per cent. The cold and backward spring has had much to do in reducing former estimates, but the chief cause lies in the appearance of the Spanish fly. Much of the acreage placed in wheat last fall has been plowed up and oats substituted, and more will probably be plowed up and put in corn.

For some time past grain freights have ruled at an abnormally low figure, and in several instances steamers have actually paid a premium for grain as ballast. The latest feature of this condition of affairs is the retaining on board the Glasgow steamers the pig iron which they brought hither as freight, and which they now carry back as ballast, to be again brought to these shores on the return voyage. It is an economy for the steamers, and the importer gets a month's storage of his iron free. It is a significant indication of the condition of the grain and iron trades as well as of ocean freights.—*Shipping List*.

Secretary Smith of the Toledo Produce Exchange, estimates the wheat crop this year, in the six principal winter wheat states—Ohio, Illinois, Michigan, Missouri, Kansas and Indiana—grouping them all together, at 75 per cent. of last year's production, which would be 83,000,000 bushels, or a loss of 27,650,000 bushels. He believes it possible for Michigan to raise as much as last year; Missouri will raise as much, and Kansas 12,000,000 bushels more than last year. Of this estimate, he says: "We know that we are going in the face of public opinion, but we are counting on the vitality of a larger proportion of the crop than the average. Both sides may be wrong, and the Chicago man correct who advertises a 'job lot of opinions cheap.'"

The chinch bug will feed upon all grains and grasses, but it is most destructive to wheat, barley and Indian corn. It has cost the farmers of the United States millions of dollars, and it inflicted great injury upon the crops last season. L. O. Howard, assistant entomologist of the Department of Agriculture, has prepared a paper on the chinch bug plague which the agriculturists of the country, especially those of the Mississippi Valley, will read with interest. Among the natural enemies of the insect are prairie chickens, quail, blackbirds, meadow larks and brown thrushes. In states where the quail is carefully protected, the ravages of the chinch bug have not been so great. For this reason, the recommendation is made that the close season for quail be extended. Pot hunters may object, but the earnest sportsman will not, because he is a good friend of the farmer.—*Chicago Field*.



## ELEVATOR AND GRAIN NEWS

J. Rohman, Louisville, Ky., will erect a brewery.  
J. W. James, grain dealer, Stromsburg, Neb., has sold out.  
Bross & Co. are building an elevator at Grand Harbor, Dak.  
Yarrick & Rogers will build an elevator at Dunbridge, Ohio.

J. R. Gordon, grain dealer, Central City, Neb., has sold out.  
Beed Bros., grain dealers, Coon Rapids, Iowa, have sold out.

Gilbert & Adams, grain dealers, Wabash, Neb., have sold out.

Toogood Bros., dealers in grain, etc., Crete, Neb., have sold out.

Tatter & Larrance, Newmarket, Tenn., are building a corn mill.

T. B. Jackson, Louisville, Ont., will erect a large grain elevator.

Prisch & Gros, Middleport, N. Y., will build a large elevator.

Mitchell & Buchnall, Millwood, Man., will erect a grain elevator.

Simlock & Rutledge, Cleburne, Tex., will erect a grain elevator.

C. H. West & Bro. will establish a broom factory at Dalton, Ga.

Starch works to cost \$75,000 are projected at Vincennes, Ind.

Paul Seeger, dealer in grain, etc., Windom, Minn., will sell out.

J. P. Becker & Co., grain dealers, Columbus, Neb., have sold out.

Wm. Gouldthorpe, Warrenton, Va., is building a corn and flour mill.

Comer & Trapp, Anniston, Ala., will erect a roller cornmeal mill.

The C. P. R. R. Company will erect an elevator at Fort William, Ont.

J. M. Lawrie, Birtle, Man., will erect a 20,000-bushel grain elevator.

Jas. J. Clark will move his feed mill from Oak Grove to Carlock, Ill.

A new elevator is being built at Carman, Minn., by Eastern parties.

Two new steam elevators will be erected at Onawa, Iowa, this season.

W. W. Dundee, Sunnyside, Miss., has purchased machinery for a corn mill.

C. W. Seefield will build a large storage and cleaning elevator at Utica, Minn.

S. S. Rust & Co., dealers in grain at Oakland and Carson, Iowa, have sold out.

The Farmers' Alliance of Auburn, N. C., will probably erect a cotton seed oil mill.

D. Robertson is successor to Robertson & Morris in the grain business at Rio, Wis.

Crew & Martin, dealers in grain, etc., Ponca, Neb., have dissolved partnership.

M. & N. Felkner, grain dealers, etc., Milford, Ind., have dissolved partnership.

A. C. Bigley, Wallace's Switch, Va., will purchase machinery for a broom factory.

Pitman & Harrison of Sherman, Tex., will build a grain warehouse 60x200 feet.

F. E. Fisk, grain buyer at Ballard, Ill., recently shipped 40,000 bushels of oats.

E. Riley & Co., dealers in grain, etc., Philadelphia, Pa., have dissolved partnership.

Evans, Burwell & Tazewell, grain dealers, Norfolk, Va., have dissolved partnership.

Two grain dealers at Monroe, Mich., bought 35,000 bushels of oats the past winter.

Boyd, Paxton & Boyd, grain commission, Omaha, Neb., have dissolved partnership.

R. C. Libby & Co. are placing a Paige Horse Power in their elevator at Brownton, Minn.

R. Shannon and Dr. Duncombe, Waterford, Ont., will build a grain elevator this season.

Anton Wagenhouser of Dallas, Tex., will erect a large brewery at Fort Worth, that state.

Joseph Blackwood and Joseph Albers are erecting a broom factory at Knoxville, Tenn.

Jones, McCormick & Kennett, grain commission, etc., Chicago, Ill., have dissolved partnership.

A cotton-seed oil mill is projected at Franklin, Va. L. R. Edwards is interested in the enterprise.

Wright, Reaves & Co. of Mayfield, Ky., will build a grain elevator, 60x45 feet in size. Its greatest height will

reach sixty feet or more. It will have a capacity for at least 50,000 bushels of grain.

The Emerson & Wild farm contemplate changes in their elevator machinery near Hunter, Dak.

The Diamond Cotton-seed Huller Company, Memphis, Tenn., will purchase new boilers and engines.

A. Beattie writes us that he has sold his grain business to the Ovid Elevator Company at Ovid, Mich.

The Atlanta Cotton-seed Oil Mills, Atlanta, Ga., are putting in machinery to double their capacity.

The capacity of the cotton-seed oil mills at Raleigh, N. C., will be doubled, making it 100 tons per day.

The grain merchants of Danvers, Ill., loaded and shipped 24,000 bushels of oats in one week recently.

McMichael Bros., grain dealers, it is reported will build grain elevators at Boyden and Hull, Minn., this summer.

Walter J. Frierson and others of Nashville, Tenn., have organized a company to establish a broom factory.

The Dickson Company, Ashburnham, Ont., will erect a 30,000 bushel elevator in connection with their flouring mill.

The Sour Mash Distilling Company, Owensboro, Ky., will make extensive improvements to its distillery at that place.

A. Bettinger & Co., Larimore, Dak., will rebuild their elevator and warehouse which were recently destroyed by fire.

J. M. Strakan of Malvern, Iowa, reports 70,000 bushels of corn raised on his rented farms near Wayne, Neb., last season.

The Virginia Chemical and Manufacturing Co., Portsmouth, Va., will purchase machinery for a corn starch factory.

The wheat dealers of Southern Michigan are making concerted effort to secure better grades of grain from farmers.

Longview, Tex., is experiencing a corn famine. Stock is being fed largely on bran, and there is no corn or oats to be had.

The large elevator built by the Lake of the Woods Milling Company at Keewatin, Man., is completed and ready for business.

D. T. Stewart, formerly manager of S. S. Floyd & Co.'s house at San Francisco, Cal., is now in the grain business in this city.

The Santa Fe Elevator & Dock Company of Chicago, have filed a certificate reducing their capital stock from \$800,000 to \$400,000.

An extensive brewery will be established in the building now occupied by the Alabama Fertilizer Company at Montgomery, Ala.

C. J. Kershaw & Co. of Chicago, who failed for about \$2,000,000 in the wheat panic last June, will probably pay 20 cents on the dollar.

Timewell & Sons, architects, Winnipeg, Man., have prepared plans for forty large grain elevators to be erected throughout Canada this year.

William Martin, Plum Coulee, Man., will build a grain warehouse at St. Jean Baptiste, upon the completion of the Red River Valley Railway.

In Colusa county, Cal., the acreage of wheat this season is about 420,000 and that of barley 50,000. The grain is reported to be in excellent condition.

The Ogilvie Milling Company will change their grain warehouse at Neepawa, Man., to an elevator of 40,000-bushels' capacity before next harvest.

A company will probably be organized at New Orleans, La., to build a large flour and cornmeal mill. Hugh McCloskey is interested in the enterprise.

On May 3 there were 9,000,000 bushels of grain in store at Milwaukee, and that amount will probably be increased 400,000 bushels before navigation opens.

Contracts for machinery and material have been placed with G. W. Crane of Minneapolis, Minn., for a number of grain elevators in Washington territory.

Reports show that the barley stand in a number of counties in Ohio and the adjacent territory of Indiana, along the state line, is entirely winter killed.

Cannon & Yates, Memphis, Tenn., have let the contract for remodeling their corn mill to the full roller process. The capacity will be 500 barrels per twenty-four hours.

An elevator and cribs will be erected in connection with the malt works at Havana, Ill., this season, having a combined capacity for 40,000 bushels of grain.

The Chicago Cash Grain Company of this city has been incorporated by William Law, Jr., Robert Lindblom and James A. Rankin. The capital stock is \$1,000,000.

The Pantagraph of Bloomington, Ill., states that at the present time there are not less than \$25,000 of Paxton money up on margins in the Chicago grain market.

The St. Paul Distillery Company have begun work on a 6,000-bushel plant in South St. Paul, Minn. It will probably be in operation by the middle of October.

J. A. McLennan, contractor, Chicago, Ill., will erect an elevator with a capacity for 1,500,000 bushels of grain, at West Superior, Wis., for the Manitoba Railway Company.

S. W. Sears, a well-known dealer on the San Francisco Produce Exchange, suspended on the 28th ult., owing to the rapid rise in the price of grain. The suspension was only temporary, and on the following Monday announce-

ment was made that all engagements would be kept, and Mr. Sears resumed his seat on the board.

A. G. & J. A. Ham, grain dealers, Woburn, Mass., have suspended. This firm failed in 1885 with liabilities of \$20,000, which they compromised at 30 cents on the dollar.

The Kansas Grain & Elevator Company has been incorporated at Chicago, Ill., with a capital stock of \$50,000. The incorporators are W. F. Beam, E. G. Hicks and John D. Hood.

H. Moudy is erecting a grain elevator at Adrian, Kan. When completed it will be 28x40 feet in size, and will be one of the finest grain houses on the Lexington & Southern Railroad.

The John Brenner Brewing Co. has been incorporated at Covington, Ky., with a capital stock of \$300,000. The incorporators are John Brenner, Charles Fink and August Timmerding.

There are 25,000 bushels of ear corn in store at Minier, Ill., and 15,000 bushels at Armington, this state. At Center Switch, near Armington, there are 15,000 bushels of oats in bins.

The Chicago Elevator Company of this city has been incorporated with a capital stock of \$500,000. The incorporators are Perry H. Smith, Jr., Edward J. Jewett and Dunlap Smith.

The Linseed Oil Mill at Leavenworth, Kan., will be started up about the middle of July on a much larger scale than ever before. George Eddy is interested in the revival of these works.

The Albert Lea Mill & Elevator Company has been incorporated at Albert Lea, Minn., with a capital stock of \$75,000. The incorporators are R. M. Todd, Charles Dwight and Salene Todd.

At the little flag station of Caines in Champaign Co., Ill., there are 50,000 bushels of corn and 25,000 bushels of oats in store. At Monarch, McLean county, there are 100,000 bushels of corn in crib.

Some changes are being made in the elevator on the Downing farm at Mooreton, Dak., by G. W. Crane of Minneapolis, Minn., preparatory to the coming crop, which is said to be very promising.

The Monticello Starch Company has been incorporated at Monticello, Minn., with a capital stock of \$15,000. The incorporators are E. S. Nicklessen, Houlton, Me., F. S. Nicklessen, Elk River, Minn., and others.

John A. Colter, a well-known resident of Brantford, Ont., has been arrested on a charge of complicity in a seed wheat scheme. John Wright, a farmer in that vicinity, is the "plucked goose" in this affair.

The grain producers of California are rejoicing over the rain which fell there a few days ago. It came just in time to save late sown grain. The prospects are now that the harvest will meet reasonable expectations.

Kienstra & Powers, keepers of a bucket shop at Philadelphia, Pa., have suspended. The firm says that the suspension is only temporary. They became involved by the failure of the Keystone Investment Company.

R. T. F. Dodds writes us that he is erecting a grain elevator and roller flouring mill at Denton, Mich. Mr. Dodds formerly lived at New Gallie, Pa., and is a member of the firm of Jas. Dodds & Son at that place.

The Chicago Brewing Company has been incorporated at Chicago with a capital stock of \$150,000, to engage in brewing and dealing in malt beverages. The incorporators are W. M. Potthast, Peter Mueller and J. D. Kirchoff.

Henry Memory, a well-known Chicago Board of Trade man, has been charged by a mercantile firm in Germany with having conveyed half a million dollars' worth of property to escape creditors. The matter will be investigated.

It is estimated that there are in country elevators in Minnesota and Dakota outside of Minneapolis, Duluth and St. Paul, 7,500,000 bushels of wheat; this is mostly owned by Minneapolis millers and large elevator companies.

The Atlas Refining Company, Buffalo, N. Y., will expend about \$100,000 in enlarging and improving their distillery. George F. Southard, Coal and Iron Exchange Building, Buffalo, is the general manager of the company.

The L. T. Soule Elevator Company has been organized at Minneapolis, Minn., to operate elevators "E" 1 and "E" 2. The incorporators are Wm. Wheeler, O. P. Carter and others. The capital stock of the company is \$50,000.

Throckmorton & Chandler, who have been conducting a bucket shop in Philadelphia, Pa., absconded recently, taking with them from \$10,000 to \$12,000 of their employers' money. This firm formerly did business in Chicago.

The Parker County Mill and Elevator Company has been organized to build a flour mill and grain elevator at or near Weatherford, Tex. The capital stock is \$40,000. James Hurst, C. B. Brown and others are the incorporators.

On Saturday evening, April 14, the Stevens County Bank of Morris, Minn., attached the wheat in Charles De Kay's elevator at that place on a claim of \$900, and since then claims amounting to about \$25,000 (most of them secured by wheat checks) more have been filed. There



are only about 3,000 bushels of wheat in the elevator to satisfy this large claim. Mr. De Kay was supposed to be doing a successful business, and it is now feared that many farmers will meet with loss.

A local paper says that J. E. Woodworth & Co., George Morton and McMillan & McBean of Winnipeg, Man., and the Lake of the Woods Milling Company of Keewatin, are contemplating building elevators at Deloraine, that province.

Sherman Waldron & Co., grain commission, etc., Detroit, Mich., are succeeded by the Sherman Waldron Grain Co. The authorized capital stock is \$20,000. The stockholders are William A. Waldron, Homer H. Peters and others.

Frank Collins, who for ten years was with Maguire & Rover in the grain commission business at Cincinnati, Ohio, and for six years was secretary of the Advance Elevator Company there, has gone into the grain business for himself.

The Union Iron Works of Decatur, Ill., have about completed the building of a 25,000 bushel elevator for Geo. Fowler & Son, on their ranch at Maple Hill, Kan. It will be equipped with Western Corn Shellers and Cleaners.

The Farmers' Co-operative Manufacturing Company of Tarboro, N. C., have placed their contract with E. Van Winkle & Co. of Atlanta, Ga., for a cotton-seed oil mill and fertilizer works. The capacity will be from thirty to thirty-five tons per day.

The Firminech Mfg. Co. of Peoria, Ill., contemplate removing their starch and glucose works to Omaha, Neb.; \$500,000 will be expended in buildings alone should the change be made, and the works will create a home market for millions of bushels of corn.

The Keystone Investment Company, a bucket-shop establishment at Philadelphia, Pa., closed a brief but eventful career a short time ago. The company acted as backer for about twenty jobbing concerns at different points in Pennsylvania, Maryland, New Jersey and Delaware.

The Texas Star Flour Mills of Galveston, Tex., have increased their capital stock to \$500,000, and will add to their business the manufacture of starch and rice milling. They will increase the capacity of their large grain elevator and will engage in the building and maintenance of public elevators.

Shippers in the West have been notified that after May 1 all grain for Buffalo or Black Rock, N. Y., must be reloaded for and way-billed to be elevated at elevators at those places. The order is issued, it is stated, that the cars of Western roads need not be held so long in the East when in demand.

The Kansas Grain and Live-Stock Company of Hutchinson, Kan., have been missing large quantities of grain from their bins in Stafford, that state, during the winter. A watch was set and three of the thieves were caught in the act. They are residents of Stafford, and have always borne a bad reputation.

The farmers in the vicinity of Alpena, Dak., have organized a Farmers' Warehouse & Elevator Company for the purpose of erecting an elevator and shipping their own grain. The company has a capital stock of \$5,000, and the site for the building has been donated by the C. M. & St. P. R. R. Company.

The Cincinnati *Price Current* says: "God makes short ribs, but man makes lard," was once said by a big operator at Chicago—and while that city absorbs equivalent to some 15,000 tierces per month of cotton-seed oil and beef product in "improving" lard, this declaration will seem to hold good—especially as to "lard."

The B. & M. R. R. Company is said to be losing its grain trade in Nebraska. Since the beginning of the strike, only one freight train a day has been run from Lincoln to Columbus, and that always behind time, and at several B. & M. points the grain trade has been nearly suspended owing to this continued irregularity.

It is stated that there has not been a first-class crop of wheat raised in the southern counties in Illinois for twelve years, and for the past seven years the crop has been a total failure. The farmers say that the whole country needs to be sown down in clover, but many of them have not the money to spare to buy the seed.

Moses Fraley, the leading speculator in the St. Louis grain markets, once more shows up "short" several million bushels of grain. As Mr. Fraley is an old hand at failing, he will probably "bob up serenely" in a short time. He says he will pay dollar for dollar. He put up \$560,000 in margins, but the bulls tossed him and he had to cry "enough."

Alfred Rhodus, formerly in the commission business with his father at St. Louis, Mo., and who is said to have caused the failure of his firm by extensive speculations in wheat, was arrested a few weeks ago on a charge of using the mails for fraudulent purposes. In company with two other parties he was working under the name of "A. E. Montague & Co."

The proposed changes in wheat standards by the grain men of Toronto, Ont., and Winnipeg, Man., still continue to be "a thing of interest and a row forever." The Toronto men, it seems, want the title of Manitoba to be stricken from their grades, the wheat to be known on the markets simply as No. 1 or No. 2 spring, despite the fact that all the grain must be grown in Manitoba or the Northwest. The Manitoba men object to this and propose that in this respect they shall remain as they are. Then as regards the percentage of wheat constituting a grade the amendments differ greatly. Toronto wants a

new grade, "Manitoba extra," to consist of 95 per cent. hard red Fife wheat, while Winnipeg thinks 85 per cent. is high enough. The Winnipeg grainmen intend to stick to their suggestions and will make a fight for their adoption.

The report comes from Madison and other counties in Wisconsin, that the chinch bug is once more on the turf and in countless numbers. W. A. Henry, professor of agriculture at the Wisconsin State University, says that the drought of the past two seasons has much to do with the present profusion of bugs, and that they are to be especially dreaded the coming summer.

The Scandinavian Elevator Company of Minneapolis-Minn., have filed amended articles of incorporation. The capital stock is increased from \$200,000 to \$2,000,000, the limit of indebtedness being \$200,000. A portion of the capital stock will be offered for sale in Great Britain, and farmers in Minnesota and Dakota will be given the preference in subscribing for a large amount of it.

A. J. Gove, grain inspector of the San Francisco Produce Exchange Call Board Association, reports the stock of grain in the warehouses in that city on May 1 as follows: Wheat, 19,309 tons; barley, 22,309 tons; oats, 2,303 tons, in corn 510 tons, and bran 50 tons. There were 71,584 tons of wheat in the Port Costa warehouses, making a total of 90,893 tons in all Call Board warehouses. A year ago there were 157,548 tons of wheat in these warehouses.

A well-informed grain man who knows "whereof he speaks," says: "The Chicago wheat market has grown too broad for the local crowd to handle. Every step in the recent advance in the price of wheat has been fought at a loss. At a dollar per bushel those fellows who have been educated for bears, will still sell the market short and get caught. They can't comprehend the meaning of a real bull movement."

The plans have been prepared for the large brewery to be erected by Iler & Burgeweger at Kansas City, Mo. The building will be 150x100 feet in size, six stories in height, built of brick, and will have a basement and sub-basement laid in asphalt. It will be furnished throughout with machinery of the most modern design, and will cost when completed \$60,000. In addition to the main building there will be a small brick engine house, to cost \$2,000. The contracts for the machinery have not yet been let.

The annual report of the Canadian Pacific Railway shows quite a falling off in its earnings, owing partly to the deficiency in the crops in Ontario, and the insufficiency of its rolling stock and elevator facilities. The great elevators at Fort William and Port Arthur have earned a satisfactory return, but the increase in grain production in the Northwest necessitates an increase, and two new elevators are to be constructed at Fort William and one at Owen Sound. With sufficient elevator capacity at Fort William and Port Arthur, the movement of grain can be kept up throughout the winter, avoiding the necessity of carrying it through to the Eastern provinces and to the seaboard by rail at a season when the rates must be either remunerative or higher than the grain can bear.

There was quite an excitement on 'Change in St. Louis, April 24, over a controversy between St. Louis and Chicago grain dealers. Several weeks ago William Dunn & Co. of Chicago purchased through their brokers, S. W. Cobb & Co. of St. Louis, 400,000 bushels of corn. The corn was sold for the St. Louis Elevator Company by D. P. Grier. The latter claimed that the grain was to be shipped by a certain date, but the Chicago people denied this. The representatives of Dunn & Co. offered a certified check for the amount in payment for the grain, but it was refused as being an illegal tender. Then \$188,000 in greenbacks was offered and this also was refused. Mr. Thornburn, who represented Dunn & Co., said: "Our firm did not only not agree to ship the grain, but had no especial intention of exporting it. We certainly could not afford to export the corn under the present conditions of the market, and there is no reason why it should not remain where it is till doomsday as long as we pay storage. It was agreed that the grain should remain in the elevator up to a certain day, which was last Sunday, and that from that date storage would be charged. There was neither written or verbal contract specifying the removal of the corn, and that's all there is to it." Later a compromise was effected, Dunn & Co. agreeing to take away a part of the corn.

## DOES DULUTH CONTROL THE WHEAT?

A dispatch from Duluth, dated May 13, says: "Developments in the wheat situation at Duluth last week have been of an unusually interesting and important character, and Duluth seems to be attracting more attention than ever before. This is due to the fact that the prospects of winter wheat are poor, and Duluth, with over 9,000,000 bushels in store, has nearly one-third of the total visible supply in the country. The last week representatives of a half-dozen leading New York exporting firms have been here, and it is reported that all or nearly all have been buying wheat. They include such well-known men as J. L. Gill, E. Bailey of Rice, Quinby & Co., William H. Wallace, F. V. Dare of the New York house of Armour, Plankinton & Co., and others, and all are eagerly watching the situation, which is intensified by the fact that of the 9,000,000 bushels here one half is held by carriers and is practically out of the market, and 3,000,000 bushels of the remainder is in the hands of shippers to go to New York. The New York men interviewed on the situation all talk bearish. They say that later reports

from the winter wheat sections than those which were made the basis of the late Government crop reports show improvements, and that the prospects in the Northwest for a big yield are excellent; that the flour market is overdone, and Minneapolis mills cannot run much longer at their present rate, but will largely cut down their production; while the country elevator companies acknowledge to 8,000,000 bushels still in their houses, and that as soon as the production of flour drops off this wheat will flow to Duluth, and that now held by carriers will be forced on the market. This view is not taken by any of the big houses here, such as A. J. Sawyer, Dunn, Thompson & Owen, and Farguson & Co. Reports came to-day from Minneapolis that only two mills have a supply of wheat, and that others are picking it up where they can, with the result that cash wheat is all being taken at a heavy premium. The result here is that there is an unusual demand for wheat, and others from the outside seem to show that Duluth holds the key to the wheat situation just now. One Chicago firm bought nearly 500,000 bushels to-day. Few holders care to let go of their wheat, and the market is in a tense condition. After Monday stocks are expected to decrease rapidly, and after a few weeks all the wheat left here will be in the hands of carriers holding for elevator charges."



### Common Carrier—Bill of Lading.

Under the statute of Texas a common carrier cannot limit its common law liability by special agreement. A stipulation attached to a bill of lading "that all liability for damages by rust or breakage, unless caused by bad storage, is assumed by shippers," is contrary to public policy and void.—*Heaton & Bro. vs. Morgan's Louisiana & Texas Railroad and Steamship Company, Texas Court of Appeals.*

### Board of Trade Contract.

Appellee traded on the Board through appellants, his brokers, giving his orders through one W. Being pressed by appellants for more margins, and making no reply, appellants changed his deal, by order of W, from September to November oats, and then sold out at a loss and brought suit against appellee to recover such loss. Held, that the facts failed to show authority from appellee to W to direct the change in the deal, and, consequently, he was not liable therefor.—*Bensley vs. Moon, Appellate Ct., Ill.*

### Replevin of Grain.

When a mixture of cereal grains occurs by consent of the owners, or under circumstances in which the mixture would be reasonably expected by the parties, and the property mixed is of the same nature and value, although not capable of an actual separation by identifying each particle, yet if a division can be made of equal value, as in the case of corn, oats and wheat, the law will give to each owner his just proportion, and such owner may recover his share by replevin.—*Piazek vs. White, Sup. Ct., Kansas.*

### Postage on Seeds.

Judge Wallace, of the United States Circuit Court, has granted an injunction in the case of *Vick vs. Carr*, restraining the defendant, a postmaster at Suspension Bridge, N. Y., from interfering with packages of bulbs, seeds or plants sent through the mails by the plaintiff from Canada upon the rate of postage of 1c. for four ounces, which has been prepaid in Canada postage stamps, by rating them up or deciding in any manner that they cannot be delivered to any persons addressed in the United States until the full rate of 1c. per ounce has been paid thereon, or from interfering in any other way with such packages, except to forward them through the mail to their respective addresses.

### Grain Delivery.

A sold corn to B for cash. The course of business between them was that A placed the grain on the vessels named by B, taking the ships' receipts in his own name, and the delivery of these receipts duly indorsed delivered the grain, for which payment was made on the following Wednesday or Saturday. The grain in this case was delivered on the boats designated by the purchaser, and the ships' receipts were given to the vendor, who refused to deliver them to the buyer unless he promised prompt payment. He promised to pay on the following morning, and the receipts were handed to him. On these receipts there were printed notices that delivery was not made, nor did the title pass, until actual payment. Held, that the delivery of the ships' receipts on the promise to pay was presumptive evidence of an absolute delivery of the grain and of credit given therefor. Also that the referee before whom the case was tried was not bound to find that the delivery was made subject to the terms of the printed notices.—*Parker vs. Baxter, New York Court of Appeals.*



# THE AMERICAN ELEVATOR AND GRAIN TRADE.

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## ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

## CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., MAY 15, 1888.

## A SPECIOUS SCHEME.

The enterprising and liberal policy of the United States in extending her commercial interests by means of railways, canals and rivers, all over the American continent, does not often encounter such a stumbling block as Gen. T. C. Wilson of Delaware, seeks to put in her way. This redoubtable individual, who claims that he represents "only himself and the American people," certainly a big enough job for one man to undertake, proposes "that all of the second paragraph of Section 6 of the Inter-State Commerce Act be repealed," and a substitute be inserted to the effect that "no common carrier shall be allowed to transport or receive any goods, wares, or merchandise, in sealed cars, or in bond, by railroad or other land carriage, through any foreign country to any place in the United States free of duty."

It will at once be seen that this cuts off all shipping of goods by rail from the East or West through Canada, making that section of country as much a foreign port as any of the European markets. Such a provision would render almost useless the many lines by which the shippers of the Northwest are able to reach the seaboard at great saving of time and expense. It would demoralize the great traffic of the wonderful country which is just beginning to show the immense resources of its fertile soil, and is offering homes and independence to the overflow of the crowded cities and towns of the East. General Wilson cloaks his real motives in making such an amendment to the law under the guise of patriotism. He deplores the fact that so much American traffic is given to the Canadian Pacific, a road built by foreign money and under the control of a foreign government. He forgets that foreign capitalists are largely interested in all the Eastern lines, and indeed, in most of the roads throughout the country. Another fear he expresses is that in case of war the Canadian railways would prove dangerous allies in the hands of an enemy. This is a sword that can cut both ways, and we have no more cause to fear Canada in the event of war than she has to be afraid of us. If General Wilson were to come out in his true colors, he would more likely be found to be the tool of the Eastern roads, which seem jealous of the power which they have so long wielded and which is slowly but surely slipping from their grasp into the hands of the great Northwest. But the day has passed when one section of this country can

dictate to the rest; the "wild West" is abundantly able to take care of itself, and its representatives in Congress will see to it that no lobbyist shall in the remotest degree be successful in an attempt to limit its possibilities.

## DEALING IN "FUTURES."

Congressman Enloe of Tennessee has a bill before the House Committee on Agriculture, which has attracted considerable attention and to which reference has been made in these columns before. His bill provides for the prohibition of dealing in futures in agricultural products, and with the usual zeal of a new congressman, Mr. Enloe apparently thinks that a "Be it enacted" is all that is necessary to prevent the bear from selling short and the bull from being long on the market.

The common error of all who attempt to suppress speculation is that all such dealing is mere juggling with prices. They lose sight of the fact that a very large share of such dealings is perfectly legitimate and occurs in the ordinary course of business. Dealing in futures offers opportunities and advantages to business men which they are prone to avail themselves of; for in this way commercial transactions are facilitated in a manner consonant with the spirit of the age. Men like Mr. Enloe contemplate a return to the business methods of half a century ago, forgetting or not knowing that so-called Board of Trade "speculation" has really facilitated trade in grain and made it possible for farmers to get anything like a decent price for their grain immediately after harvest when grain is a glut on the market everywhere.

To enact such a law as Mr. Enloe proposes would be an absolute hardship to legitimate business. It would besides set a dangerous precedent. It might lead to decided complications in legislation to enact as law that men should not buy what they could not pay for. On the other hand, it would be reasonable and just to enact that men should not sell what they did not possess. What the country needs is not a law to prevent buying futures, but something that will hit the short sellers with a club. They are the fellows that raise the mischief with the farmers and the markets. They are also the fellows that sell short way up into the millions and then calmly "die down" when the load becomes too great. If legislators go gunning for anybody, they should load for the untamed "bear" and not for the domesticated "bull."

## A VETO MIGHT DO GOOD.

If President Cleveland wants to do a good deed and at the same time indulge his propensity for vetoes, he has a most excellent opportunity to place one where it will receive the approval of the majority of the American people. When the Forty-Seventh Congress passed an \$18,000,000 river and harbor bill, its extravagance and corruption were loudly denounced. Now that the Fiftieth Congress has far eclipsed this record, it remains to be seen what the people will have to say about it. The bill which has passed the House appropriates nearly \$20,000,000. The Senate will probably add two or three millions more, and by the time it reaches the President the amount will be between \$23,000,000 and \$25,000,000. A little investigation goes to show that hundreds of thousands of these dollars, so badly needed in the business interests of the country, will be buried in the mud and lost in the sand at the bottom of insignificant ponds and ditches whose names are not to be found on the map, and whose use is known only to a few logmen or duck-hunters.

In Louisiana a number of these creeks or bayous are to be found. The beds are for the most time dry, and one, the Bayou Plaquemine, which, according to the provisions of the bill, will get \$100,000, is entirely given up to the lumbermen, its bed being nearly dry and thickly strewn with cypress logs for a distance of five miles. Bayou Terrebonne is a modest ditch which asks for only \$3,000. In many places the bed is perfectly dry, and continually so. Even rushes

will not grow in it. Another small creek in the mountains which will get \$30,000 is used only by the logmen, who want more water to float their logs down to the river.

These are but a few instances out of the many where a needless waste of money is ordered. That the main waterways of the country should be improved, every one is willing to admit, and no objection would be made to suitable appropriations for such purposes. It was stated by one Congressman who was opposed to the bill, that three million dollars of the amount was appropriated to these little rivers and creeks, and that there were forty-three new projects concealed under its skirts, which, like charity, covered a multitude of sins. It is a disgrace to Congress and a reflection on the intelligence of the people who sent such representatives, that such a gigantic steal should be allowed to go unrebuked and unresisted. If the law makers have no compunctions of conscience in thus rifling Uncle Sam's pockets, let the President show that at least he can see through their schemes, and place the mark of his disapproval upon them, even though they override his authority and persist in their outrageous extravagance.

## EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics at Washington, issued May 11, for the month of April, 1888, shows a decrease in corn, rye and wheat as compared with the same month in the previous year. The total value of the breadstuffs exported during April, 1888, was \$7,829,994, against \$12,546,946 for the same month in 1887. The value of the exports for the ten months ending April 30, 1888, was \$108,674,767, against \$132,218,477 for the ten months ending April 30, 1887.

The exports of corn for the month of April, 1888, were 1,470,338 bushels, against 3,994,569 bushels for the same month in 1887. The amount of wheat exported during the months named was 2,948,120 bushels in April, 1888, against 6,524,061 bushels in April, 1887. There were 26,943 bushels of oats exported in April, 1888, against 22,053 bushels in the same month, 1887. The exports of rye were 4,287 bushels in April, 1888, against 51,520 bushels for the same month in 1887.

## THE McEVROY ELEVATOR BILL.

After any amount of discussion pro and con, and a vast deal of lobbying and wire-pulling, public sentiment proved strong enough to compel the passage of the McEvroy Elevator Bill by the New York legislature. This bill makes the charges for the transfer of grain five-eighths of a cent a bushel in cities of over 130,000 people. The bill was aimed solely at the elevators at Buffalo, New York and Brooklyn. There seems to be no doubt that Governor Hill will sign the bill, and that the elevator extortion at the cities named will soon be a thing of the past.

Of course legislation, like the McEvroy bill, is not a desirable thing. It is a bad precedent for government to interfere in private business. But the elevator men at Buffalo had defied public opinion, and all other instrumentalities that had been brought to bear on them, for so long a time that nothing remained to be done but to compel them by law to be fair and just. As it is, the charges for the transfer of grain are left large enough to remunerate the elevator men handsomely for their services and pay dividends on some of the closed-up houses. It is to be hoped that Governor Hill will put his official seal of approval on the clearly-expressed will of the people.

The Twenty-Second General Assembly of Iowa has passed the Bohemian Oats Law, an act to punish and prevent fraud in the sale of grain, seeds and other cereals, placing the penalty for the infraction of any of these provisions thereof at imprisonment in the penitentiary for three years, or the imposition of a fine of not exceeding \$500, nor less than \$100, or both, at the discretion of the court.



## Editorial Mention.

It seems that we may settle upon a deficiency of from sixty to eighty million bushels of wheat, as compared with last year's crop.

CAYWOOD & Co., Vining, Kan., write us as follows: "Your April issue is a good one, full of interesting reading, hence the dollar inclosed."

THE WEARE COMMISSION Co. of this city write us that they are much pleased with the AMERICAN ELEVATOR AND GRAIN TRADE and consider it very valuable.

Bradstreet's has come to the conclusion that four and a-half bushels of wheat per annum per capita is too large an allowance. Gradually the wise men are all getting around to this conclusion.

THE country is taking a hand in speculation this time. Unlike some other speculative spurts, the present one is sustained by an amount of outside business that has been unparalleled for a number of years.

FREIGHT men in Iowa do not like the new state railroad law, and say that if it is enforced competition will be wiped out, and that instead of giving shippers of that state lower rates, they will be forced to pay higher ones.

THE Buffalo elevators are rejoicing in a lowering of the insurance rates charged them, and still further reductions are promised for additional precautions, such as the substitution of incandescent lights for open gas-jets.

REPRESENTATIVES of the various Boards of Trade in the Dominion will meet in Ottawa on May 15, to confer with the Minister of Inland Revenue in regard to modifications of the present grain trade under the Inspection Act.

It is not very long ago that one of the leading operators on the Chicago Board was passing his card around with the invitation, "Take what you want, boys." His card has not been passing around to any perceptible extent of late.

SANDUSKY, Ohio, proposes to make a city out of herself and build terminal docks, elevators and warehouses. Sandusky has an excellent location, and with the facilities afforded by the terminals, will no doubt have a genuine and substantial boom.

THE grain inspection committee of the Milwaukee Chamber of Commerce has examined the No. 2 wheat in all the elevators, and it is declared to be in good condition and of its usual superior quality. The active demand for it will leave but little in the elevators by the time the new crop begins to move.

THE GUTTA PERCHA AND RUBBER MFG. CO. of 159 and 161 Lake street, Chicago, will be pleased to correspond with any who may want hose of all kinds, sheet and piston packings and elevator belting. They supply standard goods at low prices, and will take pleasure in supplying any desired information in regard to the goods which they manufacture.

WHILE there is no export demand for corn, yet the visible supply is decreasing every week, and the question is often asked, "Where does all the corn go?" The answer seems to be that owing to the exhaustion of the small crops of hay and oats stored last season, and the lateness of the present season, necessitating the feeding of

full rations of corn to stock, the supply is rapidly diminishing in that way. The amount of corn fed to stock averages 2,000,000 bushels a day in excess of the usual amounts consumed at this season of the year, and will be equal to an export demand of 40,000,000 to 50,000,000 bushels.

THE visible supply of grain on Saturday, May 12, as compiled by the New York Produce Exchange, was as follows: Wheat, 29,271,771 bushels; decrease, 2,045,609 bushels. Corn, 6,924,504 bushels; decrease, 2,512,167 bushels. Oats, 4,108,084 bushels; increase, 26,072 bushels. Rye, 242,388 bushels; decrease, 17,096 bushels. Barley, 613,588 bushels; decrease, 135,530 bushels.

THE JEFFREY MFG. Co. of Columbus, Ohio, have just issued a very handsome illustrated catalogue of 160 pages, devoted to their well-known specialties. They are the sole manufacturers of the Mey-Oborn Improved Detachable Chain Belting, which they furnish in all sizes to suit standard sprocket wheels. They will be pleased to correspond with parties having any requirements in their line.

THE United States consul at Mannheim, Germany, writes that the recent increase in the German tariff on wheat and flour practically closes the market on American grain. As a consequence the provinces of Middle Germany, which for many years have produced no grain, have gone to raising wheat, which will probably prove a good thing for both the farmers and consumers.

THE FROST MFG. Co. of Galesburg, Iowa, have just completed a fine brick boiler shop which they have fitted up with the latest improved machinery, overhead track and all accessories necessary to making boilers promptly, and in first-class shape. Their plant at Galesburg is now one of the most complete in the country, and judging from their report of sales in another column, they are kept busy in all departments.

THE Directors of the Chicago Board of Trade refused to grant the petition of the Grain Receivers' Association to repeal the corner rule. The curious fact that wheat declined  $2\frac{1}{2}$  cents per bushel immediately after this decision was reached, shows how well-founded were the allegations of the grain receivers, that all legislation by the board has been in favor of the short sellers. The board ought not to tie the hands of the buyers while the short sellers are left free to raid the market at their pleasure.

MR. C. L. HUTCHINSON, the youthful president of the Chicago Board of Trade, stood fire for nearly two hours one night lately, at a meeting composed of equal parts anarchists, socialists and moneyed men. He addressed the meeting for nearly an hour, showing the functions performed by the Board of Trade, and then submitted to a fire of cross-questions from the audience. He punctured a good many of the fallacies which are believed like gospel by the outside world, especially by that part of it ruled by the labor agitator.

DISTRICT ATTORNEY FELLOWS of New York has addressed a letter to the State Legislature asking it not to adjourn without taking action upon the bill introduced in the Senate by Eugene S. Ives, and which was drawn up by Mr. Fellows, "for the purpose of suppressing that gambling practiced in the so-called 'bucket shops.'" Mr. Fellows says these places breed crime, that the number of people ruined by them is large and constantly increasing, that all kinds of tricks and devices are constantly resorted to to prevent a lucky trader from making a profit from the house, and that financial ruin is the unvarying experience of all who have dealt in them to any extent. The almost daily reports of suicides, dishonest clerks, absconding cashiers, which are found in our newspapers, bear out these statements of Mr. Fellows, and if anything can be done by the

legislatures of any of the states toward the annihilation of these pitfalls for the unwary, it should be done, and that right away.

THE formation of a syndicate of British millers is being urged by the *Miller* of London to build elevators in the Northwest, buy up the famous hard wheat of that section and ship it direct to England, without danger of admixtures with inferior grades in Eastern elevators. The *Winnipeg Commercial* urges on the British millers the advantages of opening up the Hudson Bay route, as nothing but hard Northern wheat could go over that route, and thus all danger of mixing would be avoided and the necessity of building special elevators would be obviated.

A CALIFORNIA farmer has discovered a new use for hawks, and urges farmers not to kill them. His wheat seed had for several seasons been destroyed by birds which came in immense numbers. He procured some strychnine, which he dissolved in water enough to moisten two gallons of wheat. The poisoned wheat was then scattered over each end of the field and the dead birds were soon lying in heaps at each end. Then the hawks and ravens appeared and ate up the bodies of the victims. Now if something had only come along to eat up the hawks and ravens, the story would be complete.

MAJOR EDWARDS calls attention to the fact that more than thirty elevators have burned since last fall in North Dakota and Northern Minnesota. Some of these elevators, the Major says, never had fire or lights in them. What the cause is, the Major thinks, is doubtful, some attributing it to enemies, some to elevator agents short of grain, and others to friction. Anyhow, the insurance companies are looking up the subject. We imagine that old greasy machinery and oil drippings have caused as many fires in elevators as any other one cause. There is no one cause of mysterious fires. We can only reason from the known to the unknown, and everything justifies us in believing that too many fires are attributed to incendiarism.

THE use of rope for driving purposes has excited a good deal of attention lately. Mr. J. A. Dyblie of this city, of the firm of E. Lee Heidenreich & Co., is chief engineer of the Chicago Arc Light and Power Co., in whose establishment 1,000-horse power are transmitted over a one-inch hemp rope. One of these ropes was recently replaced at a cost of \$33, and a loss of only two-and-a-half hours' time. We understand that Messrs. Heidenreich & Co. are introducing hemp rope transmission for driving grain elevators, thus causing quite a revolution in this important part of the motive power for such plants. The advantages claimed in behalf of this new departure are economy of space and cheapness, while the use of rope permits the placing of the motive power at quite a distance from its elevator. A saving in oil and coal is claimed besides, owing to reduced friction, all wheels being nearly 75 per cent. lighter. Messrs. Heidenreich & Co. will take pleasure in corresponding with interested parties.

THE agricultural outlook in Russia is very discouraging. Not only has she two formidable competitors in the production of wheat, the United States and India, but her methods of farming are so primitive and her peasantry so ignorant, that she makes no progress toward improving what natural advantages she has. The land is poorly cultivated, the highest average crop is only seventeen bushels per acre, and the customs duties are high. Several plans have been recommended to the Russian government by which it is hoped the country may be restored to its former high position among the wheat-producing nations of the world. Among these recommendations are: The improvement of the quality of wheat; reduction of the cost of production by improving the means of transport,—in other words, more railways; and the establishment of a "seed bureau" like the one at Washington. It is doubtful if either of these, except the latter, could be made practicable,



and from the present prospect, the raising of stock instead of grain for exportation, would seem to be the most profitable business to which Russia can turn her attention.

We have received a copy of the address delivered by Capt. F. Warren of the Royal Navy, before the London Chamber of Commerce, on "Our Corn Supply to-day. In case of a great naval war, would the result be starvation?" The Captain thinks that the outlook would be particularly black for England in case of a great naval war, and he sounds the warning note that Great Britain must do something to lessen her dependence on foreign countries for immediate supplies of bread. The Miller of London, Eng., advocates the building of national granaries capable of holding a year's supply of wheat. This would compel the government to go into the grain trade. Our British cousin is susceptible of being "skeered," and we would not be surprised if he did build an elevator capacity of twenty-five or thirty million bushels in the course of the next year or two.

### ENGLISH MILLERS AND AMERICAN WHEAT.

The English millers have long been desirous of obtaining Minnesota and Dakota hard wheat in its native purity, which they assert cannot be done under the present system, as in transit it invariably becomes mixed with inferior qualities. Their plan for securing the desired object is to build terminal elevators at Duluth, Minneapolis, Buffalo and other points, and by means of trusty agents secure the wheat direct from the farmers, and send it straight to Liverpool, so that it may reach the hands of their millers intact. This project seems fair to materialize. Mr. Gaudier de St. Croix, the representative of the English syndicate, is at present in this country and is looking for suitable sites for the elevators to be located at the points named. These will be of large capacity, and others of smaller size will be built along the lines of the various railroads. A company has been organized in Minneapolis with \$2,000,000 capital, which has absorbed the Scandinavian Elevator Company, although the name has been retained. The articles of incorporation have been amended, as have the by-laws, and it is the intention of the company to interest farmers so that they may become stockholders and aid in object desired, the purchase of good wheat and its preservation from deterioration until it reaches the English market. The millers and grain men of England have offered to take the first issue of \$500,000 stock. We were favored with a call from Mr. St. Croix, who expressed his faith in the feasibility of the project and the benefit to be derived both by the farmers and grain men of this country, and the millers on the other side of the Atlantic.

### THE FUTURE OF GRAIN HANDLING.

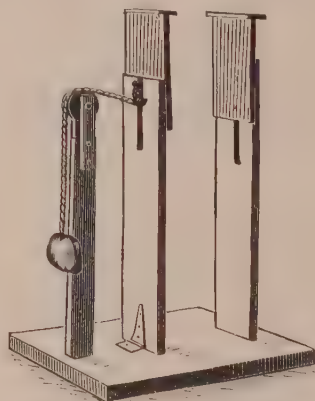
The formation of the Nebraska Elevator Company, embracing a pool of over a hundred elevators, and the movement among some of the larger grain dealers of Illinois and adjoining states for the purpose of preventing the raids of the bears on the markets, suggest the possibility that the grain trade may be on the eve of a revolution not unlike that which has taken place in some other industries. For a long while a large share of the grain trade of the Northwest has been done by a limited number of large concerns. It is not beyond the limits of possibility, in fact it seems highly probable, that concert of action at least, will be brought about by grain men in the next few years.

A friend who has for years been intimately associated with the grain trade and whose experience and observation are entitled to weight, states as his belief that in the near future the grain trade will be done by large combinations of small elevators or warehouses, with larger houses at central shipping and terminal points, with all necessary cleaning works and the like. The small

warehouses will be purchasing stations, with only the machinery necessary to elevate the grain, perhaps by the power furnished by the farmers' horses, as is now done at some points. Should this prophecy be realized, the number of small elevators in the country would be vastly increased and cheap storage provided everywhere for grain, whether in bins or cribs. Such a combination, or rather series of combinations, with a multitude of small houses and plenty of crib room, and with large elevators at central points, would certainly in the end prove a benefit to the farmer, however much he might inveigh against the formation of "pools" and "rings." At present the small dealer is too much at the mercy of the railroads; while, were he associated with a hundred of his fellows, he would be in a position to make reasonable terms with the transportation companies.

### AN AUTOMATIC BAG HOLDER.

H. H. Long, Lane county, Pa., furnishes the design of the device for holding grain bags, of which the illustration gives a perspective view. The base is of two inch plank, one foot wide and two feet long. A vertical piece of board an inch and a quarter thick, three feet long and four inches wide, is firmly mortised into this foot. A second piece, of similar width and thickness, two feet ten



inches long, is attached to the foot-piece by a hinge, as shown in the engraving. Each of these vertical pieces has a narrow slot extending one foot from the top down the middle. Two pieces of board, each four inches wide and one foot long, are loosely attached to the uprights by thumb-screws, which play in the slots. A piece of iron an inch wide, a quarter of an inch thick and five inches long, is firmly screwed to the top of each board. A third upright, four inches wide and two feet six inches long, is mortised into the foot piece, as shown in the engraving. At its upper end two short strips of board, three inches wide, are firmly attached, to support a pulley over which runs a half-inch rope, one end of which is attached to the movable upright, and from the other a heavy weight is suspended. The mouth of a bag having been turned back upon the iron cross-piece, it is held open by the action of the weight and pulley. The height of the bag-holder can readily be adjusted by the thumb-screws.—*American Agriculturist.*

### WOMEN SPECULATORS.

Curious phases of life are found in all large cities, but it is doubtful if there is one more interesting and at the same time saddening to the student of human nature, than that presented by the women who speculate on the open boards of trade or through brokers at the regular Board. It is a pitiful exhibition of what a perversion of all womanly instincts and feelings follows the mania for money-getting. It really becomes a disease, as debasing in its influence and as surely fatal in its results as the whisky or opium habit. Hear what one of the men who is on the Board says of them to a reporter of the Chicago Times:

"Oh, but they are a funny lot. Marry one of them! I'd be hanged first. As a rule they are widows or half widows, strong minded, old, unlovely, unkempt, unholy, unwinning and perfectly able to do their own elbowing. They wear long ulsters, holes in their gloves, buttons off their shoes, and gum in their mouths, and they chew, chew, chew till you'd think their tired old jaws would unhinge. I often stand over on the sidewalk there, just after the Board closes, to see the poor creatures come out, but I am not smart enough to pick out the winners, for they all look so poor and unhappy that I cannot help being sorry for them. One of the regulars wears a sealskin that comes down to her shoe tops, and rides in a coupe. She studies the markets by herself and wouldn't give a hairpin for pointers. Sometimes she doesn't make a trade in a week, but her losses are small as a rule. She is an exception, though, for very few women with her mania for speculation can put up the margins she does. I don't know any woman who has made a success of the business, although a great many have made money, and lost it, too.

It is my experience that none of the women are adapted to the business. They have a mania for gambling and come round with \$5 or \$10 to 'try their luck,' as they say. They buy a South-sider for \$1.25, but it is only the thoroughbreds who risk \$20."

A firm has recently opened an office in the Open Board and especially solicits the trade of women customers, though as a general thing brokers protest that they do not desire this class of speculators; they are too troublesome, and do not take kindly the unlucky strokes of fortune. A young lady clerk in one of the Open Board firms gives her opinion of women traders in no uncertain language. She says that women are incessant gabblers, that they don't seem possessed of the ability to think, that they talk over their trades with everybody in the room and drive out the men who want to do business. Some of them go to the Board as soon as it opens and remain all day. Some of them make money; one clears \$500 every month, another \$30 a week; one woman says she has cleared \$60,000 in the last six years but got caught in last summer's wheat deal. When a woman loses money she generally cries over it; when she wins she laughs, dances and sings. The natural result of such an exciting, fluctuating experience is a complete demoralization of character. The woman throws off her respect of public opinion, her mantle of womanly reserve; she apes the language and manner of the men about her, she adopts the slang of the pit, and the familiar address of the frequenters of the lunch room, and if men treat her as their equal or a little lower she has only herself to blame for it. If a missionary effort could be made to deter women from entering the lists of gamblers in wheat and corn and stocks, it would result in greater good to the sex than many of the projects now on foot in their behalf.

### AN ESTIMATE OF WHEAT SHORTAGE.

In a circular letter issued yesterday by Messrs. F. G. Kammerer & Co., the following conclusions are drawn by Mr. Fred. A. Small, as to the meaning of the government crop report:

While the wheat situation possesses elements of strength other than crop damage, that factor again obtrudes itself in connection with the recent Agricultural Bureau report, which has caused unusual discussion and inspired the formulation of estimates of the shortage indicated, many of which confuse rather than enlighten. With a view of intelligently understanding the report, we present what to us seems a logical solution. The December report gave the acreage seeded at from one to two per cent. less than last year, when the area was 24,221,000 acres, and the yield 292,830,000 bushels. By deducting 1½ per cent. from the acreage given we have for an area seeded for the 1888 crop 23,858,000 acres. To find then what is really represented by an average condition of 73, it will be necessary to first find what a full average crop would be on the acreage seeded. In this estimate we use 13½ bushels per acre, that being about the usual full crop average, 14 bushels being considered phenomenal, which would in round numbers give us a full crop of 325,065,000 bushels, 73 per cent. of which would be 237,297,000 bushels. As the report makes no allowance for acreage plowed up, we deduct for such loss 73 per cent. of a full average yield on 1,445,000 acres, accepting the estimates of Messrs. Howard, Bartels & Co. in their circular of the 10th inst., which amounts to 14,372,000 bushels, to be deducted from 237,297,000 bushels, leaving 222,925,000 bushels as the indicated yield on the general average of 73 or 69,805,000 less than the production of 1887. If the first of May condition is maintained until harvest, which, while not impossible, is unusual, and the spring wheat equals last year's yield, we would, if our deductions are correct, have a total of winter and spring wheat of 386,500,000 bushels. As the indicated shortage is almost wholly east of the Rocky Mountains, and stocks in that territory have been reduced to a very low point, with the reserves of a 456,000,000-bushel crop to draw upon, it requires but little credulity to believe that a crop of 386,000,000 bushels will furnish surplus enough to prevent producers from being masters of the situation. As the plowing-up process still continues, and the acreage lost is in states usually large producers, the estimate for loss in that direction is doubtless below the real shortage, and in view of the fact that the department report makes but a moderate allowance for the California deficiency, and reports from the Southwest steadily grow worse, we believe an estimated shortage of 85,000,000 bushels is not unreasonable.

### RUBBER BELTS.

Some months ago a New York belting and packing manufacturing company used up 88,000 pounds of rubber and cotton duck in a single order for three giant belts. One was a driving belt 52 inches wide, 8 ply thick and 298 feet long. It weighed 4,000 pounds, and was the biggest thing in rubber ever produced. The other two were carrying belts, each three feet wide and nearly half a mile long and each weighed 11,000 pounds. To make them of leather would have required 1,000 selected hides. All the belts were shipped to West Superior, Wis. This same company made what is known as "the champion" carrying belt of the world. It is now in operation at the Pennsylvania Railroad Company's grain elevator in Jersey City. It is 2,700 feet long, weighs 16,000 pounds, and runs on small rollers. It is used to carry grain from one end of the elevator to the other, for delivery into the chute at the end of the dock.



## Fires, Casualties, Etc.

E. Fowler, dealer in grain at Milford, Conn., has died.

The decease is announced of Louis A. Aldrich, of the grain commission firm of A. P. Aldrich & Sons, Boston, Mass.

The Farmers' Warehouse at Nicolaus, Cal., was slightly damaged by fire April 20. The fire is supposed to have been of incendiary origin.

James M. Smith, who for many years was engaged in the flour and grain commission business at Philadelphia, Pa., died April 28, aged 67 years.

The Kenosha Flax Mill Company's mill and warehouses at Kenosha, Wis., were burned May 1, together with 25,000 bushels of barley owned by W. H. Pettit & Co.

The grain elevator at Abingdon, Ill., owned by G. W. Barnett, was destroyed by fire May 13. It was filled with grain. The loss is estimated at from \$8,000 to \$10,000; partly insured.

The roller mills and elevator at Tecumseh, Neb., owned by James Hill, were burned to the ground April 7. Two cars of wheat and two of corn were consumed. Loss \$20,000; insurance \$8,000.

Two large corn cribs, each 25x150 feet in size, and holding 50,000 bushels of corn, were destroyed by fire at the Union Stock Yards in Chicago April 23. Other valuable property was also consumed.

The grain elevator at Casselton, Dak., owned by Malloy Bros. & McClure of Stillwater, Minn., was burned recently. But little of the wheat was injured, and the structure will be rebuilt at once.

Mrs. James M. Moon, wife of James M. Moon, a prominent grain dealer at Mansfield, Ill., died very suddenly April 18, from heart disease. She was in perfect health until a few moments before her death.

The big elevator of the Winona Mill Company at Winona, Minn., had to shut down during the late flood, owing to the water completely filling the boot. A new water-tight boot was subsequently put in.

Henry M. Kinne, a well-known resident of Buffalo, N. Y., died at his home in that city April 24. Mr. Kinne was one of the most noted marine men of his day, and was interested in the first grain elevators erected at the port of Buffalo.

Taylor & Bates' large brewery at St. Catharines, Ont., was totally destroyed by fire May 8. The fire is supposed to have been the work of incendiaries. The loss is estimated at \$25,000; insurance \$14,500. The brewery will be rebuilt at once.

The elevator of G. W. Van Dusen & Co. at Arlington, Dak., was burned April 20, with its contents. The loss is estimated at \$15,000; insurance unknown. The fire originated in the Chicago & Northwestern Railway depot and spread from there to the elevator.

The Farmers' Alliance elevator at Grandin, Dak., was destroyed by fire April 19, together with 2,000 bushels of wheat. The building was valued at \$4,500 and was insured for \$4,000; insurance on the grain \$3,000. The fire is supposed to have been the work of an incendiary.

A part of Sloop's Elevator at Fargo, Dak., was carried away by the recent rise in the Red River at that point. The Alsop and Grandin Elevators there were also badly flooded, and considerable damage was done to the grain warehouses and elevators along the levee at Moorhead, Minn.

An attempt was made on the night of May 3 to set fire to McInnes & Co.'s storehouse adjoining their oatmeal mill at Ingersoll, Ont. Fortunately it was discovered before the fire had made much headway. Cotton saturated with oil was found thrust under the flooring and ignited.

The elevator of Walker & Armentrout at Newmarket, Ind., was destroyed by fire May 10; 1,500 bushels of wheat were consumed. The fire originated in a store, and spread from there to the elevator and a number of other buildings. The total loss is estimated at \$15,000, with light insurance.

The Joint Stock Company's grain storehouse at Chatsworth, Ont., with its contents, was burned April 16. About 5,000 bushels of grain, owned by C. Goode of Toronto, were destroyed. The storehouse was built in 1882 at a cost of \$2,300, and it had a capacity for 40,000 bushels of grain. There was an insurance of \$1,333 on the building. The grain was partially insured. The origin of the fire is not known.

Joseph H. Hill, a prominent member of the Chamber of Commerce at Milwaukee, Wis., died April 14, after an illness of four days. Mr. Hill was a native of Bangor, Me., and located in Milwaukee in 1845. In 1856 he formed a partnership with his brother, Horatio Hill, under the firm name of H. & J. F. Hill, and for many years they did an extensive wheat and produce shipping

trade. Mr. Hill's death resulted from a severe attack of inflammatory rheumatism.

On May 5 the driving belt in J. J. Clark's feed mill at Carlock, Ill., became fastened on the machinery, and the mill was jerked entirely out of the building and thrown up against the engine. No one was hurt and but little damage was done except to the building, the west end of which was torn out.

The Zeiser Brewery, a large three-story brick structure, located two miles northwest of Clinton, Iowa, was completely destroyed by fire April 12. The building and machinery were valued at \$10,000; insurance \$2,000. The brewery was not in operation at the time of the fire, owing to the prohibitory law.

On the morning of April 15 the large three-story brewery of Philip Fresenius & Sons at New Haven, Conn., was completely gutted by fire. The boiler house, barn and several other small buildings were destroyed. Loss \$150,000; insurance \$40,000. The fire is supposed to have been of incendiary origin.

Hugo Miller, a well known member of the New York Produce Exchange, was found dead at his residence in Williamsburg, May 10. It is believed he committed suicide. He has been on the wrong side of the wheat market for some time, and it is thought that financial troubles led to his self destruction.

A grain shoveler, named Cornelius Collins, met with a terrible accident May 11 at Buffalo, N. Y. He jumped into the hold of a barge which was unloading grain at the Erie elevator, and was drawn against the elevating machinery by the suction, and both of his legs were cut off below the knee. It is thought he cannot recover.

J. R. Becker & Co.'s elevator at Columbus, Neb., had a narrow escape from fire April 24. It caught from sparks from the smoke-stack of Schroeder Bros.' Roller Mill, two blocks away. Fortunately it was discovered and extinguished before serious damage was done. The wind was blowing hard and a big conflagration was narrowly averted.

The C., M. & St. P. R. R. Company's elevator at Northfield, Minn., was completely destroyed by fire April 24. It had a capacity for 75,000 bushels of grain, and the value of the building was estimated at \$15,000. It was not used for storing wheat at the time of the fire, but contained thirty tons of hay, the property of J. T. Ames, and a stationary engine owned by E. T. Archibald & Co. Several buildings in the vicinity of the elevator were also destroyed. The total loss is \$30,000.

## ITEMS FROM ABROAD

Wheat is said to be the staple of the north and middle of China.

The grain crops in Buenos Ayres during the past season were the largest on record.

Harvest is progressing favorably in Buenos Ayres, but the crop is estimated to have been damaged fully one-third by drouth.

The Hessian fly is doing great damage in New Zealand, and the authorities have applied to England for a preventive of this destructive pest.

Late government reports from India indicate the crop will be larger, than last year, with other food products also larger, leaving more wheat available for export.

The elephant is used for plowing in Ceylon. He works well and goes over the ground so fast that it is as much as two men can do to hold the plow down to the furrow.

The Chilean wheat crop is late and below the average this year, and advices say that the shipments this year will not exceed two thirds of the quantity exported last year.

The Dundee, Scotland, *Advertiser*, says that during the second week of April, for almost the first time in the history of agriculture, a quarter of barley was distinctly higher than the price of a quarter of wheat—barley being 31s., while wheat was only 30s.

Portugal imposes an import duty on wheat of 14s. 6d. per imperial quarter, and on maize, rye and barley of 12s. 8d. per quarter. Farming in Northern Portugal is a thriving business; rye is grown in the mountains, wheat in the uplands and maize in the rich alluvial valleys.

The area of wheat land in India for the present crop, which is now harvested, is estimated at 5,910,300 acres; nearly equal to that of last year. It is stated that the crop is reported to be good in every district, and that prospects are very favorable owing to the seasonable rains.

The last postal advices from Buenos Ayres say the maize harvest was in progress, favored by warm and dry weather, which, if continued, would enable the crop to be got in in excellent condition for shipment. The estimate that at least one-third of the crop had been lost through drouth seems to be confirmed, but it is extremely difficult to make such estimates with any degree of correctness, owing to the unequal yield, which varies from one to five

tons per cuadra, or from ten to fifty bushels per acre. Maize firmly held, and wheat more active. It is stated that twenty cargoes of grain had been shipped from ports on the Parana within a fortnight.

The Minister of Agriculture reports the condition of the wheat and rye crops in Austro-Hungary at the beginning of April as very satisfactory, except in the northern part of the empire, where the plant was seriously injured by frost. Other advices, however, report injury elsewhere from spring floods.

In Germany the weather has become more seasonable, and spring sowings are in progress. The season is very late, and the area soon will probably be smaller than usual. Reports relative to winter wheat and rye are variable, injury being reported from some districts, but complaints are general as to the backwardness of the season.

The Hessian fly, that much dreaded pest of the wheat field, has made its appearance in New Zealand. The authorities are taking active measures to prevent its spread, as if once it obtained a hold in this important agricultural colony, which contains 7,000,000 acres of cereals, grasses and green crops, the results would be most disastrous.

The latest advices from New Zealand say that while the new wheat is of excellent quality, the yield is disappointing, being 15 to 20 per cent. under previous estimates, and the exportable surplus will be correspondingly reduced. A large number of vessels had been chartered for April and May loading, so that as the season advances a fairly active export business may be looked for. Farmers were holding back, hoping to secure better prices later on.

A correspondent in an Indian journal, writing from Milan, says that to meet the wants of small Indian agriculturists, he has brought out and patented a machine called an eliminator. Through this the mass of bruised and broken straw and wheat as left by the treading out of the animals, can be passed, and it will complete the threshing so that none of the wheat will be wasted; at the same time the wheat is separated from the straw, cleaned and put in sacks, while the straw is delivered on the ground and the foreign substances into a basket. The machine is light, can be worked by a small portable engine or by horse power, and is not expensive.

A British consular report states that the quantity of winter wheat remaining in South Russia is very large; that it is calculated that by the opening of navigation the stocks of cereals at Rostoff, Tagarog, Azov, Yarik and Temriuk will amount to over 16,000,000 bushels, and should the young crops continue to progress favorably, these, coupled with the farmers' stocks of winter wheat, will form large, unprecedented stocks for shipment. A great breadth of land was plowed last fall, and the winter has been most favorable. The young crops were well up before snowfall, and the whole country has been completely covered. Land is increasing in value, independent of the depreciation of the ruble, owing to the immigration of colonists.

A new granary now in course of construction at the Bristol Harbor Railway Wharf, Bristol, Eng., is approaching completion. It is built of red brick. The tender of nearly £30,000 of Messrs. Storrs, Sons & Company (Lim.) of Stalybridge, was accepted for the work, and that firm commenced operations in April, 1887. The building has a frontage of 236 feet 6 inches to the water is 99 feet wide, and is 95 feet high from basement to parapet. At the top, facing the harbor, will be a panel parapet bearing the date 1887, and over this are to be placed the city arms in cast iron. There are nine floors, including the basement, the latter, which will be used as a haul ing-way, being 22 feet 6 inches high, and having weighing platforms 7 feet high. All the other stories, with the exception of the apartment in the roof (which is set apart for the machinery) are 9 feet from floor to floor. The granary is of great strength. The floors are supported by iron columns, about 780 being used throughout the building. There are three hauling ways on the ground floor—one in the center for general vehicles—and a line of rails will run parallel with the front and back walls. A verandah of cantilever girders, covered with zinc, extends 16 feet over the quay wall. The machinery for receiving and discharging grain is to be placed in the chamber formed of the roof. Two bucket elevators will carry the grain to the top floor, where, by means of four bands running the whole length of the building and shoots, it will be distributed wherever required. The granary is expected to be completed in the course of the summer.—*Millers' Gazette.*

## BROOM CORN.

The cultivation of broom corn is proving a valuable industry in the Middle and Southern states, into which it has been introduced within a few years. As is well known, the plant is a native of India, and the first seed planted in this country was by Dr. Franklin, who saw a bunch of the plant which had been brought from India, and finding a seed on it, planted it in his garden. The first brooms used in the United States were made by the Shakers, in Schenectady county, N. Y., in 1798, and in the city of Schenectady the first broom machinery was manufactured. The Western farmers, especially in Kansas and Nebraska, have been very successful in their efforts in raising this corn, and Illinois also produces a large crop. Chicago is the main point of distribution for the machinery used in the manufacture of brooms in the West.



## Press Comment.

### WATERING HIS BARLEY.

"It is impossible to know," says the informant, "what is wanted now, but I suppose any stick is good enough with which to beat a dog. I always thought a bright, clean sample was welcome in the market, but no one made me an offer. 'Too hard, too white, no use to me,' that was how they put me off. I had threshed out a field of as good grain as was ever grown or harvested—100 sacks that had never had a drop of rain in harvest time—clear and clean, hard and dry. I showed it to two or three, and couldn't get a bid; took it to another market; hadn't a chance to sell there either. Well, thinks I, if they won't have it one way I'll try another. First making the experiment on a sack or two, I shot the whole out on to the barn floor and flung water on. Nigh upon twenty pails full—some fifty gallons of water—were thrown over it, and it was turned over once again, and seemed next day to be as dry as ever. I measured it up once more—full bushels. I got 121 sacks instead of the original 100, took it to market and it was bought by the first man I showed it to. And next week when I went for the money, he told me that the bulk was better than the sample."—*Agricultural Gazette*.

### WHEAT POINTS.

The position of wheat is peculiar. The Chicago operators, big and little, appear to be long and trying to educate the world to that side. The country is on that side moderately, but New York is not on that side. The country elevator men are not on that side. The exporters are not on that side, and the foreign speculators are not on that side. The news put out is of serious damage, but this is not all credited. If, however, there is a crop of 400,000,000 bushels, or 57,000,000 bushels short of last year, it will make an average crop for four years of about 417,000,000 bushels. A crop of 400,000,000 bushels will give less than 70,000,000 bushels for export with what is carried over this July added. The government report is expected to show a poor condition May 1, possibly as low as 70 per cent., but since May 1 there have been munificent rains all over the country. With a crop of 400,000,000 bushels and the very small surplus to carry over, the statistical position here would be one of great strength, but the balance of the world must not be forgotten, and crops of other countries, as far as reported, are up to the average or better. A bull market for the next year would, however, be the strongest kind of relief for the dilapidated wheat market.—*Financial Critic*.

### AMERICAN WHEAT IN LIVERPOOL.

The little dispute between Edward Atkinson and some English economists as to the ability of United States producers to deliver wheat in the Liverpool market at the low prices which are likely to prevail is a matter of considerable importance to us, in view of the fact that sooner or later we shall be forced into rivalry with India as a wheat-producing country. Mr. Atkinson's original contention was that the American farmer could make as much profit to-day on wheat at 34s. per quarter in Liverpool as he could when it was at 50s. per quarter in 1873. Naturally enough several English critics denied this assertion. But Mr. Atkinson now brings forward figures to show that by the cheapened cost of production and transportation, American wheat can be put down in the Liverpool market even as low as 28s. per quarter and still be as profitable to the farmer as it was when the price was 50s. The figures, derived from recognized authorities, certainly seem to be unimpeachable, and must be regarded as proving Mr. Atkinson's case. The fact throws light on the large reduction in railway and steamship charges that the last fifteen years have witnessed. It still further postpones, too, the time when India can drive us out of the European wheat market.—*Providence Journal*.

### FUTURES.

There seems to be before Congress one or two bills that have come near being unnoticed relating to the sale of what is commonly known as "futures," or special contracts for the sale and delivery of merchandise at some future time. The bills make it a punishable offence if the contracts do not cover actual merchandise in hand or that represented by some kind of a certificate. Cotton, of course, is included in the category, and therefore is of direct interest to all of the cotton exchanges in the country and their patrons. The New York Exchange has already taken necessary action to be represented before the proper congressional committee to object to any favorable consideration of the bill. The passage of a law for the abolition of dealings in options or futures would exert more of a baneful influence on the cotton-planting interests of the country than many may be aware of, to say nothing of the effect it would have on the commercial movements of the crop. Even if such a law should be passed, it is exceedingly doubtful if it could bear a constitutional interpretation. We do not believe it could stand any length of time if a case under it was brought before the courts upon its constitutionality. Cotton sold for future delivery under the rules of the Exchanges is actual, and must be tendered at the time named, if some other mutual arrangement is not entered into. Many have the idea that cotton transactions in the Exchanges are done simply on margin, in which actual cotton takes no part. During the existence of the contract, it is true, margins have to be

provided either by the seller or buyer according to the variations of the market, but final settlement on a margin is not a necessary consideration in the fulfillment of a contract. It is no "bucket-shop" concoction, which has been justly pronounced by the courts as nothing better than gambling. That dealing in cotton futures has been and is resorted to for speculative purposes is a matter which cannot be absolved from any class of dealing in merchandise where conditions are propitious and the ways smooth.—*Boston Journal of Commerce*.

### PLENTY YET LEFT.

Evidently the North American continent has yet some land in store for occupancy by future generations. When the mills of Minneapolis receive part of their wheat supply from the fields lying from one to two thousand miles north of the Falls of St. Anthony, the tender Southern newcomers to the metropolis of the Northwest will probably not grumble so much about the climate. In the meantime the disciples of Malthus can take matters a little more easy. As the human race multiplies, the earth seems to grow also. It has yet some fields and resources left waiting for coming generations.—*Minneapolis Tribune*.

### A GREAT SCHEME.

It is proposed to form a company for the purpose of carrying grain for speculators, who can pay carrying charges, but cannot take wheat as it is delivered to them on contracts and pay for it. The plan seems to have been devised to prevent excessive short selling. As business is at present conducted, every man who is long of grain, and who cannot or will not take the grain and pay for it, prepares, as delivery day approaches, to settle his contracts or change them over to some future month. The proposed company is to prevent all this by carrying the cash grain as it is delivered at no more expense to him than to "change over" to another month would be. Now, as to its effects upon the shorts. Of course all the grain in store here is bought and sold many times over for delivery in the same month. The result is that if everybody who bought grain stood ready to take it, the shorts would find their difficulty in delivering it. The prospect of a scramble to get grain to fill contracts, under the proposed scheme, is expected to make excessive short selling hazardous. Its comparative safety heretofore seems to have been in the necessity above mentioned, for the smaller longs to change over to other months. The proposed plan is entirely novel, and there are likely to be some serious obstacles in the way of carrying it out, but if it is successful it would seem to be likely to revolutionize the entire business of dealing in futures, if it did not kill it altogether.—*Daily Business*.

### A CORNER IN CORN.

That there is a syndicate behind corn, is settled. Its personnel, or part of it, is known to a few on 'Change. A local banker and two wealthy local merchants constitute the party, and they are practically in control of all the corn in sight. According to reports, which are reported to be reliable, these three gentlemen, believing that corn was legitimately worth more money, began to buy it early last winter. They have been at it ever since. With the exception of a small lot which is in the control of a Buffalo glucose factory, and a larger quantity which was bought by the McCormick people at St. Louis for foreign export, nearly all of the available corn has passed into their hands. With few exceptions, the shippers and receivers did their buying for them, as they could do it without attracting so much attention as the regular speculators. Quietly, and from day to day, for weeks and months, they have picked up May corn until their holdings became something enormous. As the time for the settlement of the May business drew near, however, they began to let the shorts change their May contracts to June at 2 cents difference. This has continued for a short time only. Shorts in the May future, realizing their inability to fill their contracts, have been more than willing to make the change, and at 2 cents difference it is profitable to the syndicate. There will be no corner, say the syndicate, but local shippers will not be allowed to hold values down while the legitimate demand justifies higher prices. Meanwhile, two commission houses are practically controlling the cash corn for them, and every bushel that goes out never comes back. The syndicate knows whether it is going to supply genuine consumptive demand before they let go of it. The line of march, as marked out by the syndicate, is to keep corn well up to 60 cents for all of the months up to the marketing of the new crops, and incidentally of course, to make money out of the transaction.—*Chicago Daily News*.

Among recent sales, the Frost Mfg. Co., Galesburg, Ill., report the following: To F. S. Manson, Holstein, Iowa, a 15-horse power engine and 20-horse power boiler; Wm. Small, Cameron, Ill., an elevator outfit complete; Duncan Bros., Roseland, Neb., an 8-horse power engine and boiler, and elevator fixtures complete; Marcus Shipping Association, Marcus, Iowa, a 15-horse power engine and 20-horse power boiler with sheller, cleaner and all fixtures complete; R. K. Warner, Utica, Ill., a 15-horse power engine and 20-horse power boiler, with elevator outfit complete; D. H. Gray, Elmwood, Ill., a 25-horse power boiler; James Robertson, Washta, Iowa, elevator outfit; Seaton & Cabeen, Seaton, Ill., a 15-horse power tubular boiler; C. F. Luce & Co., Woodbine, Iowa, a 15-horse power engine and 20-horse power boiler, with sheller, cleaner, roller feed mill, etc., complete; John H. Downing, Granville, Iowa, a 15-horse power engine and 25-horse power boiler with elevator outfit complete, including over 200 feet of Harrison Conveyors.

## THE EXCHANGES.

The Toronto Board of Trade will erect a handsome new building this spring.

Tickets of membership to the New York Produce Exchange have recently sold at \$1,325.

Fort Worth, Tex., is about to erect a five-story building for the Board of Trade of that city. A. J. Armstrong of Birmingham, Ala., has furnished the plans.

The East Baltimore Business Men's Association propose to establish a new Produce Exchange at Brown's Wharf. The sum of \$6,500 has been subscribed and the enterprise will undoubtedly be successful.

The Chicago Board of Trade directors have returned with their disapproval of the petition of the grain receivers asking for a vote of the Board to strike out the rule known as the anti-corner rule. Several of the members were suspended for five days for trading after hours.

The annual election of the Chicago Open Board of Trade was held May 8. The following officers were elected: President, W. D. French; vice-president, E. E. Powers; directors, J. A. Beach, G. R. French, A. J. White, A. A. Frazer; arbitration committee (two years), T. S. Bell, H. L. Bush, W. S. Tilford; appeal committee, W. H. Cuyler, C. H. Smith, W. A. Dunklee.

Secretary Smith in the Toledo *Market Report*, says that it cannot be denied that the reports of growing wheat do not in the aggregate present much more hopeful conditions than a month ago. It was hoped that good weather would have a favorable effect on crops, but the suitable weather has not materialized. The past month has been dry, cold and not favorable for growing grain, and a late and insufficient crop is threatened.

The New York Produce Exchange proposes to capture some of the business which now falls into the hands of Chicago. Their first project was to furnish quotations gratuitously to all the large markets of the South and West, but as it was found that this would cost about \$50,000 annually, that scheme was abandoned. Now they will ask the outsiders how much they will contribute toward getting the quotations, the Exchange to pay the balance.

The sixth annual report of the trustees of the gratuity fund of the New York Produce Exchange, recently published, shows that 163 new members have joined the Exchange since the last report. The number of subscribers to the fund is 2,932. The trustees have invested in bond and mortgage during the year \$188,700, making a total so invested of \$1,084,250, and the value of the property loaned on is \$2,513,000, all in New York and Brooklyn. There were forty-three deaths reported during the year, and the amount distributed in gratuities was \$292,134.25, an average for each payment of \$6,793.83. The percentage of deaths to the membership has been 1,467-1000. The surplus to the credit of the fund is \$1,138,573.96, or \$220,381.96 in excess of the estimated surplus one year ago.

### IT MADE THEM SMILE.

A dispatch was recently sent from New York, which caused a ripple of mirth to overspread the countenances of the California grain-bag dealers. The dispatch was to the effect that a sudden demand for grain bags was agitating the Eastern market, and that a bag broker of the metropolis who represented the mills, had contracted for 150,000 bags at prices ranging from 4½ cents each to 5¼ cents. This was evidently considered by the sender of the dispatch as a very large quantity, but with the California dealers is often the amount of one day's sale. Last year there were sold on the Pacific coast 53,000,000 bags, and the indications now are that 2,000,000 more will be required for the wheat crop this season. There is a prospect of an immense yield of wheat, and the entire double-shift prison force at San Quentin, which is the only jute bag manufactory in this country can produce but 1,250,000 per year. The bulk of the supply, or over 30,000,000 of bags, comes from Calcutta. They are filled with grain and shipped to Liverpool and then returned to New York, and are not used again for wheat, but for shipping vegetables or mill offal.

The old, time-honored game of the corn wagon was recently successfully worked on two different grangers at Omaha, Neb., by a couple of sharpers. They pretended to buy the granger's corn, and took him to a remote part of the city to unload. Here was an empty wagon, and he was told to throw his corn into it. After making the transfer, one of them jumped into the wagon with him and told him he would go with him to have the wagon weighed, and would then pay him for his corn. While on the way up town the stranger jumped from the wagon and disappeared in an alley. On returning to the vacant lot the granger found that the wagon with his corn was missing. "Such is life and still we linger."



## WATERWAYS

The Chesapeake & Ohio Canal is doing fairly well under the new management, which assumed control Jan. 12.

W. P. Williams, engineer of the Nicaragua Canal, estimates that it will require \$200,000,000 to complete the Panama canal.

As soon as the Canal Appropriation Bill becomes a law in New York, the state will take \$100,000 of the money for general repairs on the Erie Canal.

The New York state canals were officially opened May 10. There are fewer bars than last year and the canals generally are in better shape for the resumption of navigation.

The greatest grain fleet that ever left Chicago at the opening of navigation began starting out April 29. It was composed of 96 vessels, and the cargoes aggregated 4,432,000 bushels of grain.

The proposal to connect Paris with the sea by a canal is again being pressed forward. Government assistance is not invoked for the project, all that the promoters ask being the right to levy a toll at so much per ton.

Over 600 boats are in use on the Delaware & Hudson Canal. There has been but little detention so far to boats on account of breaks along the "big ditch." The canal men make a few dollars each season by allowing patent medicine sign boards to be tacked on their boats.

The water in the great lakes is the lowest known in forty years, or since 1847. No cause has been found as yet for this diminution, but the effects will be felt at almost every port on the lakes. It will be necessary to dredge the Chicago River at the bridges to allow of the passage of vessels.

The government officials at Ottawa state that work will be commenced on the Canadian ship canal at the "Soo" this season, \$1,000,000 having been appropriated for that purpose. The canal will be built with two locks, one for vessels going up and the other for downward bound craft. There is great rejoicing on the Canadian side over the news.

The following revised schedule of trip rates on grain has been made by the Chicago Board of Marine Underwriters: From Chicago to ports on Lake Michigan, 25 cents; to ports on Lake Superior, 40 cents; to Huron, Sarnia and Detroit River, 35 cents; to Georgian Bay, 40 cents; Lake Erie, 40 cents; Lake Ontario, 40 cents; to Ogdensburg, 60 cents; to Montreal, \$1.

It is reported that a number of capitalists of Superior and St. Paul, Minn., have subscribed the money to make a survey for a ship canal between the head of Lake Superior and St. Paul, and that an engineer corps will be started out right away. The object is to prepare estimates of the cost of the canal, so as to place them before the Wisconsin legislature or before Congress, at the next session of either.

It is proposed to build a ship canal for large vessels between London and Liverpool. A number of small canals along the route, a distance of 200 miles, can be utilized. The principal reason urged for the building of such a canal is for national defense, as in event of war, gunboats, torpedo vessels and ordinary ships of war, could be conducted from the North Sea to the Irish Channel, without being exposed to attack by any other naval force. It would also build up the towns and cities along its line, and would aid every branch of trade and commerce.

Senator Cullom has introduced a Hennepin amendment to the River and Harbor Bill. It is practically the old measure authorizing the Secretary of War to construct the canal and feeder on one of the routes heretofore surveyed, and for which an appropriation of \$500,000 is asked. The senator has also introduced a waterway amendment, which provides for a survey for a ship canal from Chicago to the Mississippi. As Senator Cullom is a member of the Commerce Committee which has charge of the River and Harbor Bill, it is more than probable that these propositions will be considered.

The New York Board of Trade and Transportation held a meeting recently, which was addressed by Congressman Nutting of Oswego, on the subject of an American ship canal around Niagara. By cutting such a canal connecting Lake Ontario with Lake Erie, it is claimed that three-fourths of a cent per bushel can be saved in the cost of transporting grain from the West to New York, and over a day in time. The cost has been estimated at from \$10,000,000 to \$18,000,000. The Board was asked to support and endorse the bill for this project, which has been introduced into Congress.

The Erie Canal was opened at West Troy for the season, May 10. It was estimated that nearly 500 boats were waiting at Albany and West Troy for the opening of the Erie and Champlain Canals. Many of these boats were grain vessels which the Albany Express says are, as a rule, the aristocracy of canal craft. They are usually as large as the locks of the canal will permit, many being ninety-six feet long. Most of the skippers are married, and their families travel with them. Many of the cabins

are handsomely furnished with Brussels carpets, lace curtains, pictures and other adornments, and here they live pleasantly and conveniently. The average Erie Canal boat costs from \$2,500 to \$2,800, and the Champlain boats from \$2,000 to \$2,500, the latter being smaller and lighter than the former. The boatmen look forward to a prosperous season.

Mr. William H. Morrell of New York, backed by a syndicate in that city, is the projector of a canal to connect Lake Michigan with Lake Superior. It will be cut across the Michigan peninsula and will cost, with the necessary docks and approaches, about \$2,500,000. The syndicate will petition Congress to either appropriate this sum and make a government work of the enterprise, or assist them to build it. The upper lake traffic bound for Chicago would by this route have its journey shortened by 300 miles, and its risk of loss by wreckage divided in half. It is estimated that the canal would pay for itself twice over in the course of a year.

A delegation from a number of the business organizations of Baltimore, headed by the mayor, visited Washington recently in favor of the bill to appropriate money for the Chesapeake & Delaware Free Ship Canal. In the conference with the House committee on railroads and canals, they presented the advantages of the proposed canal in bringing the Atlantic ocean 200 miles nearer to the great grain and provision-producing sections of the country, in the saving of time from 22 to 24 hours to Liverpool, and thereby saving expense in transportation, in attracting to Baltimore fleets of ocean steamers which would produce competition in ocean rates and greatly reduce freight charges, and many other like arguments.

### DAMAGE TO GRAIN CROPS.

The people who speculate in grain are brought about this time every year face to face with a problem nearly as hard to solve as is the one which comes around only once in several centuries in the shape of a Donnelly cipher. The fact of its annual recurrence makes it all the more difficult to understand the situation this year. There can be no reasonable doubt that the wheat crop of the United States, east of the Rocky Mountains, has been damaged severely, an absence of moisture last autumn having left it to make a feeble start, which the weather of the spring months could not force to a vigorous growth. But it is said that complaints such as reach the ears of the trade now are heard every spring, and the bears point triumphantly to low prices on previous short crops as proof that there is no cause for pecuniary alarm now. The falling of copious rains this week has done much to allay the fears of many, though it is claimed that the moisture comes too late to produce a good yield on a diminished acreage, while it certainly will not make wheat grow on the hundreds of square miles of land that was sown to it last fall, but has since been plowed up and planted to other grain. It is also said prolonged cold weather and then heavy rains have delayed the seeding of spring wheat in the Northwest, and some of the people who try to estimate the crop in advance of harvest time are figuring out that it must be less than 400,000,000 bushels.

The market, however, shows no sign of excitement. There has been some speculative buying on the theory of a short crop, but it is met by confident selling on the part of men who have made money for several years by operating on the bear side. This week the folks in the wheat pit are disposed to do little till they have seen the Government crop report, which they expect will be issued to-morrow. They want to know what it will have to say about the harvest prospects, and the chances are that when they have that information they will feel almost as much in the dark as they are now. If the document contains estimates of a big shortage in production it will be argued that the whole aspect of the case has been changed by the copious rainfall which has visited the Western states since the writing of the individual reports from a perusal of which the Washington statement is made up. On the other hand, if the Government statistician thinks the documents submitted to him do not warrant an unfavorable estimate there are those who will hint that the report is valueless, not being based on the actual returns, and they will point to certain figures about the cotton crop to prove they are justified in the cavil. Meanwhile the farmer who helps to pay for the compilation stands little chance of being benefited by it. He must bear patiently his share of whatever loss may accrue, and with little hope of realizing a part of the profit reaped by some fortunate speculators.

There is one phase of the situation about which little doubt need exist. It is the magnitude of reserves from the crops of last year. These are small, both in wheat and corn—probably have never been less so in proportion to the number of inhabitants since the American farmer began to raise grain for export. This fact more than offsets the diminution in the foreign movement of breadstuffs in the last few months, but the last-named point furnishes the real reason why our markets have refused to advance on news of short crop, and sufficiently answers the doubts of those who cannot see how the value of wheat here should be dependent upon quotations in Liverpool. The refusal of the foreigners to pay higher prices for the small surplus which it is assumed we have yet to spare, and the willingness of some of them to sell short in this market whenever they see our quotations range a few cents above what is to them a shipping basis, explain the whole of this apparent conundrum. If it shall ever appear that we have positively no foodstuffs to

spare for shipment abroad the selling value here may be dictated by purely domestic considerations. But unless that point is reached, as it probably never will be, any great deviation from the value as established by reference to that abroad can be only temporary. It will be like the inflation of last spring, when speculative excitement brought an avalanche of wheat into this city and finally broke the market by its own weight, the result being that the surplus was got rid of at the lowest prices ever known since there was a speculative market for wheat in Chicago.—Chicago Tribune.

### WHAT'S IN THE MARKET?

Wheat last week advanced 5 cents a bushel, the result of the crop report which speculators were so long awaiting. And already the majority of the wheat pit is rather nervously looking for a break. The report was much more sensational in its estimate of the damage than was generally believed probable, yet a 5-cent advance has become an astonishing affair, something altogether too good to last, or at any rate, so very good as to make anything on top of it not to be expected. A break somewhere is, of course, to be counted on. If the price of wheat should, because there is a crop failure, keep on advancing, without any pauses and set-backs, until the price relatively offsets the entire damage, then the theory of a speculative market would be upset, and the speculator himself proved to be without any respectable place in the great scheme. But a 5-cent advance from 80-cent wheat on the news that the crop is going to be any way over 50,000,000 bushels short of the very moderate one of 1888, and perhaps short of it a good deal more than that, is, after all, only a bagatelle. The June report will take into account the acreage, and for that reason will put its general condition—which is a sort of sign figure—lower than 73. Every June estimate in the last half-dozen years has shown a drop from the May. Then, in addition to this, the thing only hinted at in the recent document, the condition of the spring wheat crop, will loom up in the next month's. In five years it has been good method in speculating to run with the market 2 cents, and in exceptional cases 5 cents, but then to turn and play for a reaction. The rule has worked so well that three-quarters of the speculators are still following it. The result will probably be that the professionals as a body will do as poorly in wheat this summer and fall as they have done during the past few months in corn. There is likely to be on this crop of wheat a great bull time, with surprisingly long advances and surprisingly few and brief pauses. Stocks in Wall street have had, in a bear way, some such movement as grain will probably have in a bull way at Chicago. The declines in securities at Gotham in the past few weeks have been so far and so without any reactions, that scores of the big men down there, the men of old methods, have been stripped of their money and leadership, while new men, not influenced by old saws, have gained the money and gotten the leadership. There has already been some such transfer of money and authority here in the corn pit. It has been on a great long advance and not, as in Wall street, on an unusually long decline; but the direction of prices cuts no figure. It is simply that the big trained speculators get into the way of overrating their own influence; get too strongly grounded in the belief that rallies are certain to follow little breaks, or breaks to follow little rallies; get, in short, to be too conservative and into the idea that the days of wide fluctuations are altogether of the past.

The foreigners have had an overshadowing influence in this market for the past few years—ever since they began to speculate here on a large scale. One commission man told the writer last week that he had a single English customer who had taken \$500,000 out of the Chicago wheat market on the short side. As a body they are going this year to be stripped of the money they have made here and deprived of their old-time influence. In a speculative way the foreign markets are easy to control—especially easy to depress. The English shorts are now doing what they can to discourage any advance here by holding their own markets and flooding this country with bear news. They have not so far shown a particle of concern. They have not covered their shorts on this side to any extent, and probably went for some time to come. One of the old "saws" they have learned is that "carrying charges" will beat anything; and a 20-cent advance will undoubtedly find half this contingent still out. It is a little strange that "Hutch's" experience in corn did not put a shrewd old veteran like him on the alert. The government crop report caught him playing for a reaction in wheat, just as the government crop report in November caught him "playing for a reaction in corn. It looks as if, together with all the other veterans here as well as in Wall street, Hutchinson was this year going to be caught, or at least left behind. Ream is another. He has gotten into the habit of talking platitudes, and probably of believing them. If this year proves a year of rapid and wild plunges in price, platitudes will not be worth anything, and the philosophic sort of trader will not make any money. In a year such as this is going to be, Billy Murray, if he gets a start, will make five times as much money as Ream.—Ex.

It is estimated that there are between five and six million bushels of corn cribbed along the line of the granger roads, which may come to Chicago if the price is made satisfactory. About one-tenth of this is on the line of the C., B. & Q.



## WHEAT WAS WEAK.

"Real spring day!" he said to the man standing at the tobaccoist's counter with him.  
 "Is it?" was the curt reply.  
 "Yes, a regular spring day."  
 "Well, ought to be. It is the spring season, I believe."  
 "This will be good for wheat," continued the other.  
 "Will it? Are you a farmer?"  
 "No, sir."  
 "Own any wheat on the ground?"  
 "No."  
 "Ever own any?"  
 "I—I—no, sir."  
 "Ever sow or reap any?"  
 "No."  
 "Can you tell me within two weeks of the time when wheat is sown or cut in this locality?"  
 "No, sir."  
 "I thought as much!" sarcastically observed the stranger as he walked away.  
 The other reflected for a few minutes, looking red and pale by turns, and then remarked to the boy behind the counter:  
 "He didn't leave a cigar for me, did he?"  
 "No, sir."  
 "Well, he's a mean man—mighty mean! No true gentleman would ever have tripped a man up on wheat as he did me."—*Detroit Free Press.*

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Elevator in good corn and oat country. Capacity, 10,000 bushels; crib room, 30,000 bushels. Good reasons for selling. Address for full particulars

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We have for sale a lot of belting, bolting cloth, core wheels, collars, couplings, elevators, engines, hangers, pulleys, reels, smutters and shafting. Write for catalogue with net prices annexed. Address

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A good grain business in Northwestern Iowa. I have a strong, substantial warehouse, 32x60 feet, 12-foot posts, owned by the C. & N. W. R. R. Co., the rent of which is nominal. Two good storehouses for storing oats; capacity 14,000 bushels. Also office and scales together with my residence. A good chance for the right man. Good reasons given for selling. Address

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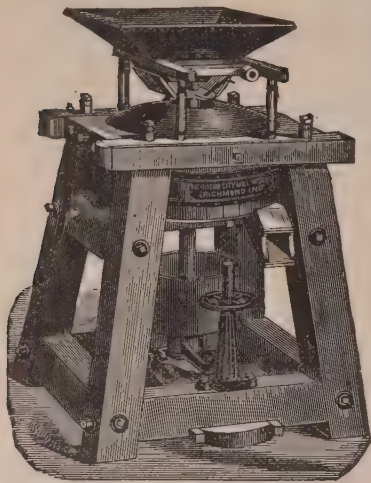
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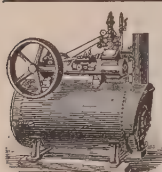
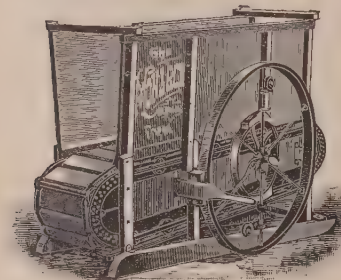
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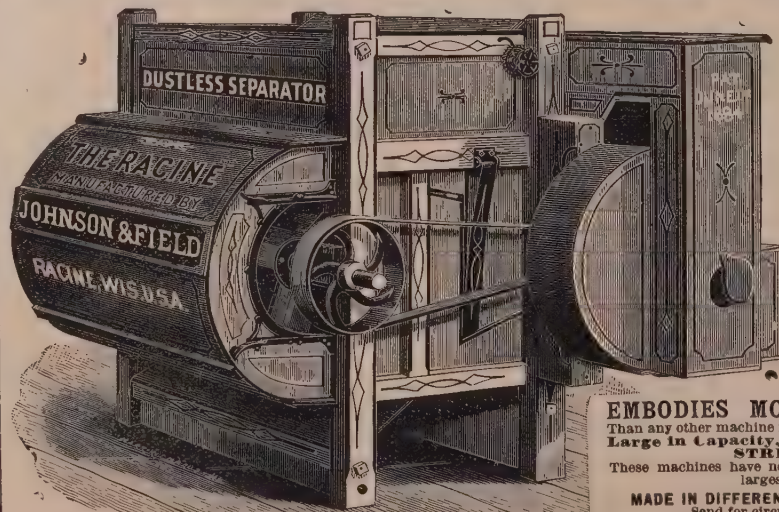
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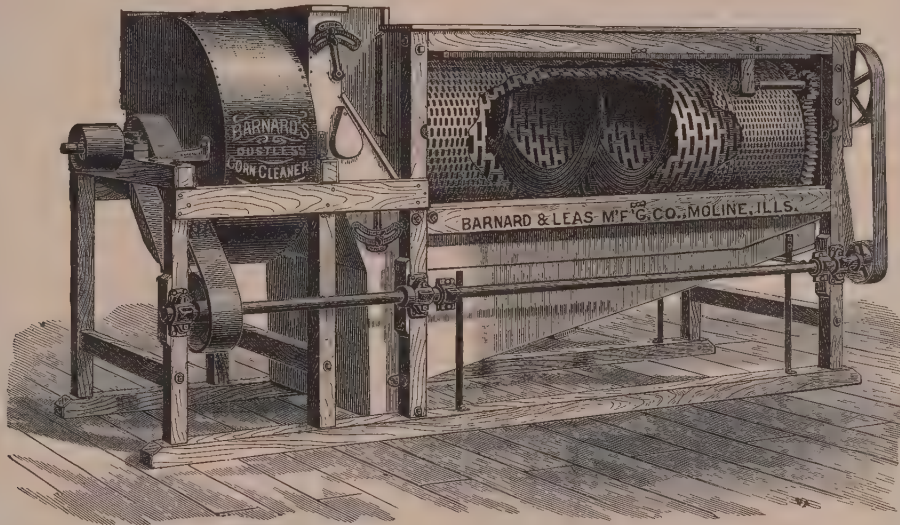
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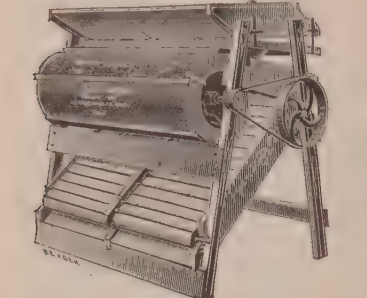
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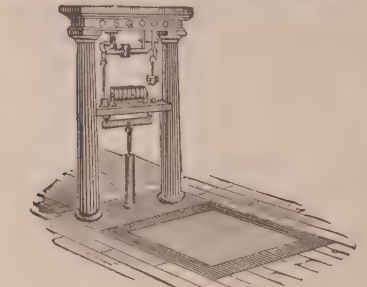
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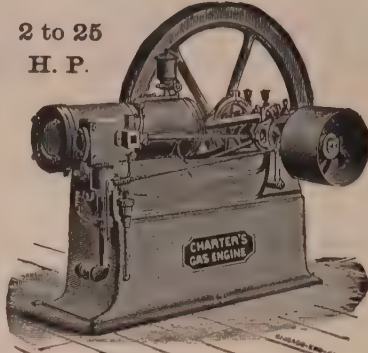
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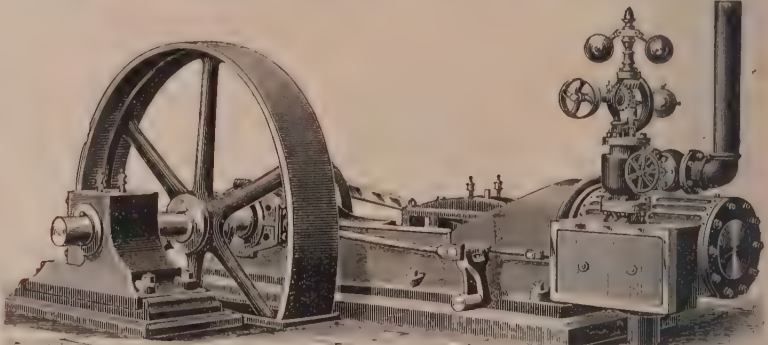


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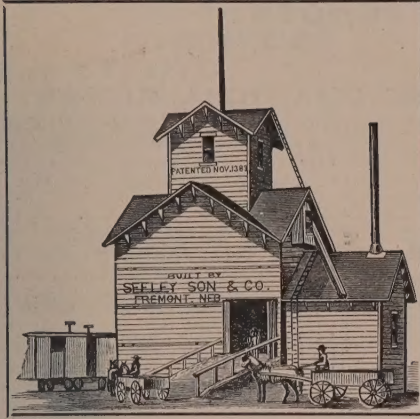


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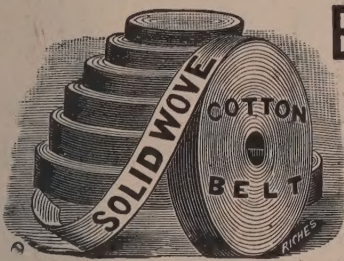
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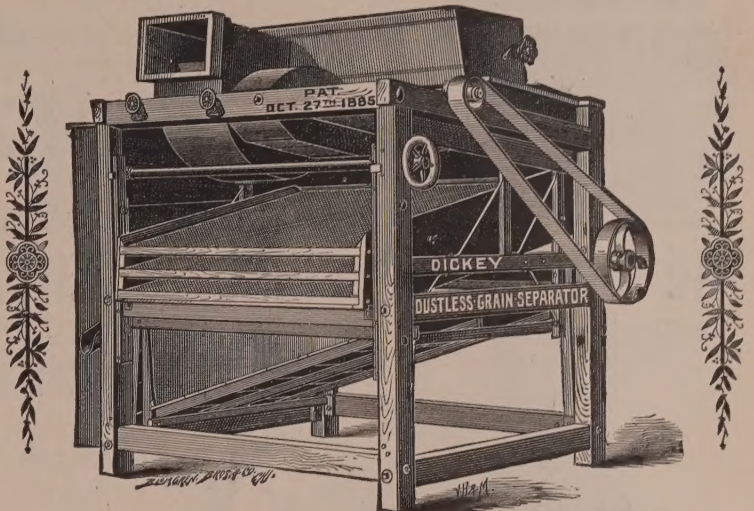
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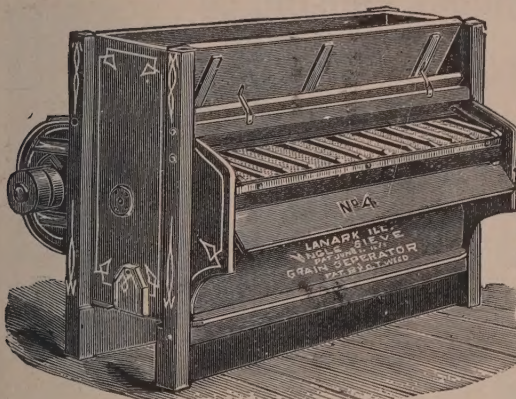
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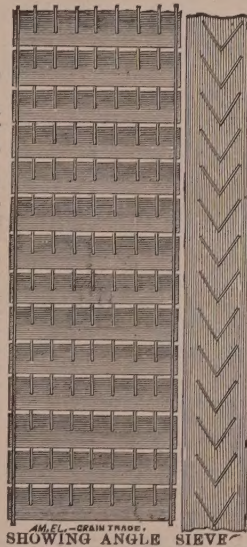


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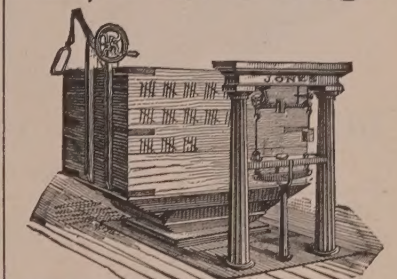
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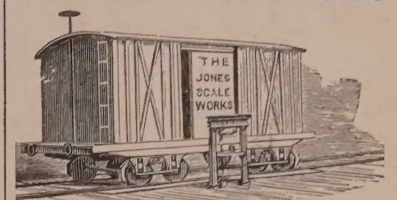
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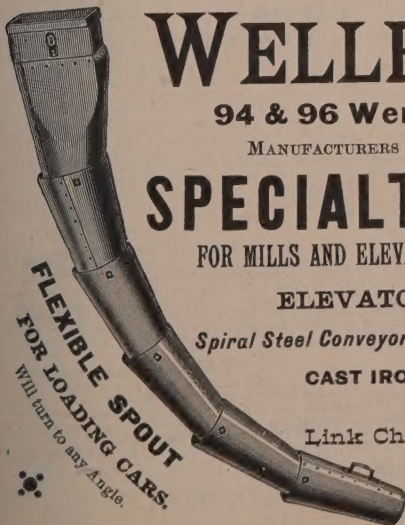
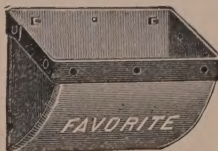
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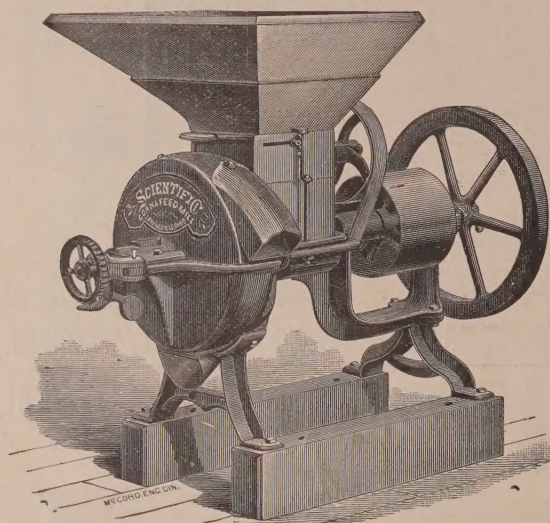
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—THE—  
**BEST MILL**  
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ELEVATOR  
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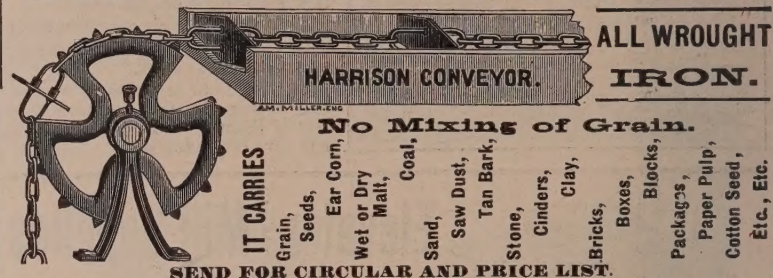
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**Crowl's Patent Standing Seam,**  
Plain Rolled, Corrugated, and Crimped Edge,  
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Made of Steel and Charcoal Iron, awarded first medal by the New Orleans Exposition.  
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## The Holmes Patent Three-Sided Elevator Buckets.

From its shape it is impossible for it to clog or carry its contents around the second time, which has been in the past a source of trouble and annoyance. They can be run on a perpendicular belt and with much greater speed than any other bucket. The cut shows the manner of fastening the smaller buckets, the larger ones, owing to the greater weight of their contents, it is necessary to secure by lugs or ears on the inside of the ends or side pieces. These buckets have been in service for some time and have given excellent satisfaction, so much so that many customers ordering on trial have placed their second and third order. These buckets are made of galvanized iron, and can be furnished at short notice. A sample will be sent by mail upon receipt of 25 cents in stamps. Millers will find it to their advantage to use these buckets.

### PRICES.

For 4-in. Belt, 12 cents each.	For 9-in. Belt, 25 cents each.
For 5-in. Belt, 14 cents each.	For 10-in. Belt, 30 cents each.
For 6-in. Belt, 16 cents each.	For 11-in. Belt, 34 cents each.
For 7-in. Belt, 18 cents each.	For 12-in. Belt, 40 cents each.
For 8-in. Belt, 22 cents each.	Other sizes in proportion.

### TESTIMONIALS.

South Abington Station, Mass., August 4, 1885.  
Your favor received, and we can say most cheerfully that the Buckets you sold us July, 1884, have been in daily use since we commenced running our mill until the present time. We find them satisfactory in every respect, and if for no other reason than the fact of their running almost perpendicular, "thereby saving much room in a mill." They are

Address **JOSEPH A. HOLMES, Proprietor, Greenland, N. H.**

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Mention "American Elevator and Grain Trade."

ahead of any Bucket now manufactured, so far as we know. Trusting our testimony may aid you personally, as well as the millers throughout the country, we remain,  
Yours with regard,

**AMOS S. STETSON & CO.**

York, Maine, August 15, 1885.

It is now nearly a year and a half since I placed your patent three-sided Bucket upon my belts, for elevating grain, meal and saw-dust. I have used four different kinds of buckets, and find that the durability and increased speed at which yours can be run and completely emptied of their contents by the hinge motion in passing over, make them superior to all others, and I shall soon send my order for enough to fit my mill throughout with them. Yours truly,

**S. S. BRACKETT.**

Greenland, N. H., September 9, 1885.

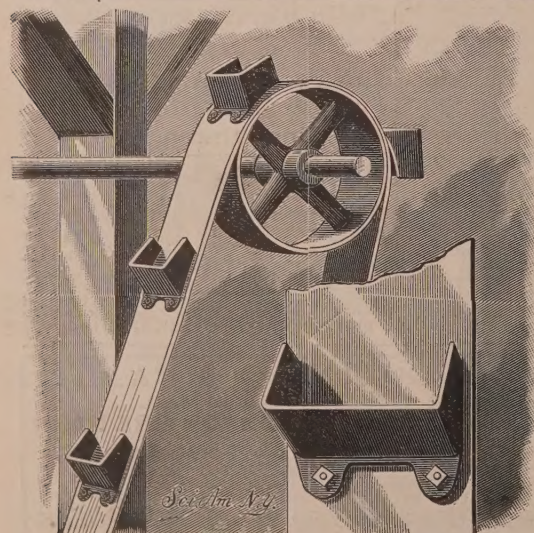
During the past two years I have had the three-sided Elevator Bucket, patented by Joseph A. Holmes, in constant use, for elevating oyster shells, bones, corn, cracked corn, meal and shorts, and not one of them has ever been broken or displaced in any way. They always empty freely, without carrying any of the contents around the second time, can be run on perpendicular belt at any speed, are cheap and durable. I have used several other kinds of buckets, but find these superior in every way to any of them.

**FRANK HOLMES, Union Mills,**

No. Berwick, Me., July 31, 1885.

I have tested your Elevator Buckets and cannot find any fault with their working. As I have not had any experience with other buckets, I could not say whether they are superior to others or not, but my miller thinks they are the best he has ever used. Yours truly,

**N. C. KNIGHT.**





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the cost of producing goods  
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The "Best in the World."

Elevator Supplies of All Kinds a  
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We are the Pioneer Elevator Builders of the  
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Write for Catalogue.

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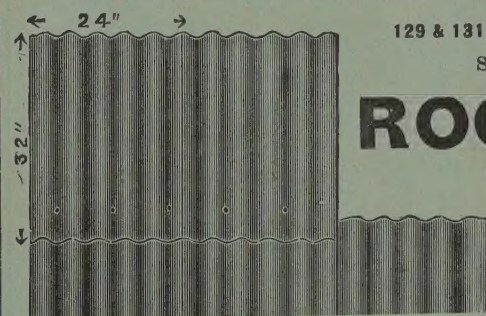
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**ROOFERS!**

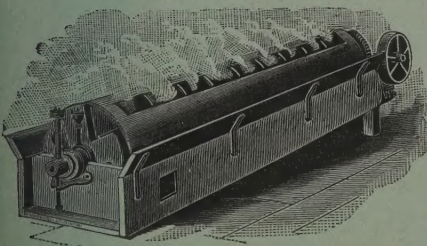
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Drying Cylinder made entirely of iron.  
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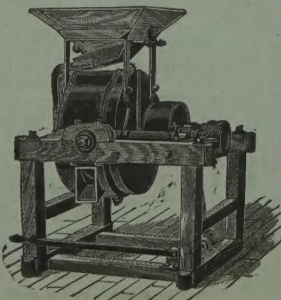
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The Adjustment is Positive and Automatic, utilizing every  
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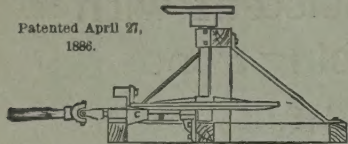




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## LESS POWER

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May be DRIVEN FROM the BOOT when desired.

Just the thing for Small Country Elevators.

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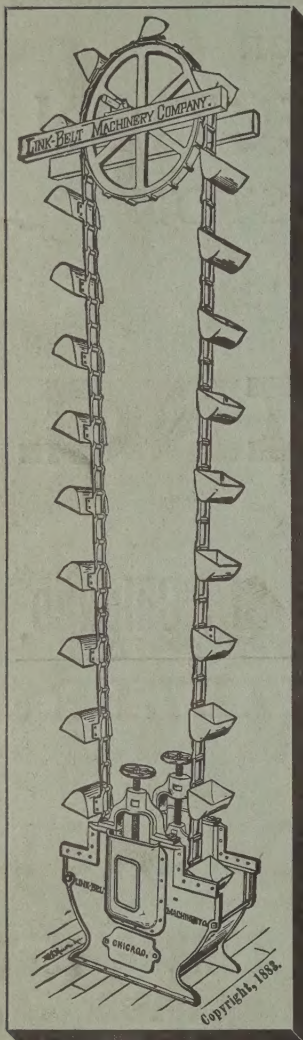
It cleans the trough perfectly.  
Will not mix the grain.

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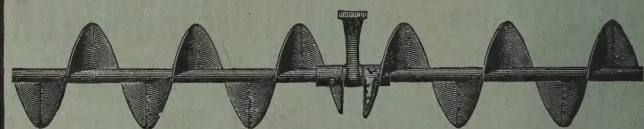


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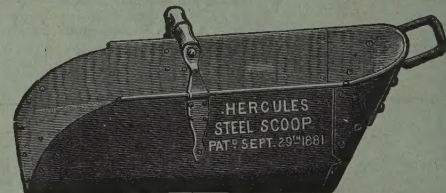
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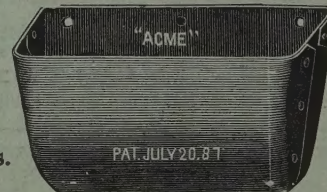


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